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The Illusory Basis of Musical Experience:

A Psychological Conception of the Musically Aesthetic.

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Ph.D. Thesis

Department of Philosophy

Durham University

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Contents

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Abstract

Is the musically aesthetic an objective property, or an effect that emerges from, and is dependent on, our perceptual apparatus? Certain things clearly do not depend on perception: concrete physical objects like the screen in front of me continue to exist whether they are perceived or not. However, other things I perceive do not persist beyond their perception, most obviously perceptual illusions such as the Waterfall or Muller-Lyer illusions, or the illusion that is created when I stare at an object and press the side of my eye. This thesis offers a novel cross-disciplinary approach to musically aesthetic experience, where the musically aesthetic is presented as an effect of perception similar to such illusions; this is in opposition to the prevailing view in musicology and aesthetics that the musically aesthetic is a feature of objects that listeners become acquainted with.

The perception-dependent view is characterised as what I call the *phenomenal* conception. This is contrasted with the *abstract conception*, where the musically aesthetic is taken to be independent of perception. Scruton's arguments on the separation of *tone* from sound are used to characterise the latter, abstract view as involving acquaintance with a conceptual order that is independent of any particular instance of perception. The contrasting phenomenal view is initially argued for in the case of *musical movement* specifically: by demonstrating that such movement can be understood as *psycho-acoustic* using several models from music psychology, and elucidating musical movement as *nonconceptual* by showing that our beliefs about how music moves conflicts with our experience. The thesis' purview is widened to the musically aesthetic generally and various issues relating to the distinction between phenomenal and abstract views are discussed, including: *internalism* and *externalism* about aesthetic experience, concessions a phenomenal view makes to certain putatively *formalist* notions and the explanatory problems that manifest when approaching musically aesthetic value.

Chapter 1

Conceptions of the Musically Aesthetic, an Introduction: abstract and phenomenal, conceptual and nonconceptual.

1. 1 Introduction to Thesis.

This thesis develops a distinction between two conceptions of the musically aesthetic, *abstract* and *phenomenal*: conceptions where the musically aesthetic is taken to be independent of perception (*abstract*) and conceptions where the musically aesthetic is taken to be dependent on perception (*phenomenal*). When I perceive a tree I have an experience of that tree, but when I look away the tree continues to exist: it exists independently of whether I perceive it. Conversely, if I perceive a tree and then press on the side of my eye so that the tree appears to double and distort, I have an experience of two identical distorted trees, but when I release the pressure on my eye and perceive a single normal tree I assume that those distorted trees that had been experienced no longer exist: they exist only insofar as I perceive them, and as such are dependent on my perception of them.

Characterisations of *abstract* and *phenomenal*:
-*Abstract:* the musically aesthetic is an aspect of musical objects whose nature and operation is independent of any particular instance of perceiving music–

obtaining in a conceptually defined, imagined or transcendent space that a suitably encultured listener becomes acquainted with.

–*Phenomenal:* the musically aesthetic is an effect of *nonconceptual* psychology– obtaining in an illusory space that depends on a listener becoming psychologically engaged with sound in a way that is not understood in terms of the listener's concepts.

The former is widely assumed in fields outside the psychology of music, but has not been made explicit in its opposition to the latter, in the terms given above. I argue for the latter, phenomenal, conception partly because it coheres strongly with recent work in music analysis and psychology and partly because arguments for abstract conceptions are open to various criticisms.

Eduard Hanslick (1891), who defines music in terms of movement, commits to the abstract view with the notion of 'specifically musical beauty': in being *specifically musical,* musical beauty cannot depend on anything non-musical like perception. It requires training to come to appreciate specifically musical beauty on this view, but this act of appreciation merely serves to acquaint the listener with a beauty that is intrinsic to the object, independent from any particular experience. Conversely, work by the music-psychologist Eric Clarke on the ecological perception of musical movement, drawing on ecological theory originally wrought by James Gibson, suggests the musically aesthetic depends on *perceptual effects*.[1] On this view, movement is heard in music by the same perceptual functions that movement is heard in the environment, with the important difference that the musically aesthetic is understood as a *perceptual illusion*: the listener's true beliefs conflict with her perceptual experience, given that the listener correctly believes that the ordinary musical object– independent of her experience– does not have the features perceived.

[1] See chapter 3 for a discussion of ecological theory.
[2] See Iseminger 2003.
[3] See chapter 2.
[4] See Chalmers 2006; Block 1990; Nagel 1974.
[5] See Shelley 2015.

This distinction relates to that given by Andy Hamilton where he describes music as 'abstract in form but humane in utterance' (2007: 114), with the important difference that 'humane' is a broader term than 'phenomenal', being inclusive of global aspects of culture. The distinction also draws on Iseminger's juxtaposition of 'epistemic' with 'phenomenological': 'epistemic' conceptions describe music experience as involving a form of non-inferential knowledge, while 'phenomenological' conceptions characterise in terms of 'what it is like' to undergo the experience.[2] 'Epistemic' is a more exclusive term than 'abstract' since it entails a kind of personal acquaintance with an object, even if this acquaintance is conceptual and as such dissociable from any particular instance of listening; 'abstract' entails 'epistemic' acquaintance but also includes any view that conceives of musical movement independently of any particular instance of listening experience, such as those that impart a dualism between music and world.[3] 'Phenomenal' is intended to share the reference to 'what it is likeness' with 'Phenomenological', but is not intended to imply the particular continental tradition of Husserl, Heidegger, Sartre and others that is commonly referred to as Phenomenology. The term 'phenomenal' has a usage in analytical philosophy of mind that means *subjective feels, what it is like, qualitative feeling* or *qualia*.[4]

A final terminological distinction of relevance is made by James Shelley, who compares 'externalist' with 'internalist' views.[5] The meaning of these terms relates to that intended by 'abstract' and 'phenomenal', with the internalist appealing to features internal to *experience*– typically the phenomenology of the experience– and the externalist appealing to features external to the experience– typically features of the object. 'Abstract' and 'phenomenal' entail 'externalist' and 'internalist' respectively, although 'abstract' may include aspects of experiences, such as concepts, that are dissociable from particular experiences, and 'phenomenal' is cashed out primarily in terms of how nonconceptual psychological processes shape the perception of music perception, rather than the phenomenological tradition of introspection and intuition. This final point

[2] See Iseminger 2003.
[3] See chapter 2.
[4] See Chalmers 2006; Block 1990; Nagel 1974.
[5] See Shelley 2015.

regarding the base from which support for a phenomenal view is garnered represents the principle point of divergence between the approach adopted here and the aforementioned philosophical approaches.

As mentioned above, the abstract view is widely assumed outside of music–psychology: in philosophy Scruton, Budd, Hamilton, Levinson, Boretz and Hanslick are examples; within musicology examples include Schoenberg, Schenker, Cook (insofar as they assume musical experience generally to be such and consider movement to be part of that experience); in aesthetics in the late 20th century there was a shift from conceiving aesthetic experience generally in terms of properties of the experience– Beardsley (1958) following Dewey (1934– to conceiving it in terms of properties of the object that perceivers become acquainted with– Dickie (1969) influencing Beardsley (1982). So Dewey and early Beardsley can provide examples of the somewhat pertinent view that aesthetic experience is characterised by the properties of the experience rather than the object, even if this is not identical to the narrower view I argue that musical movement is dependent on perception.

From the outset it is important to note the circumscription of a cross-disciplinary approach. Where an attempt is made to bring together issues belonging to several distinct areas of study there is an acute danger of straying outside fields of expertise and thus of drawing conclusions without proper grounding in the relevant discipline. With this in mind, the conclusions I draw below will be primarily ones for musicology and the fairly narrow field of musical aesthetics, while support will come both from within these areas and from further afield in music psychology and, in later chapters, certain of the less contentious issues in philosophy of mind. Music is a cross-discipline topic and a cross-cultural artefact, an aspect of the human experience that is peculiarly pervasive given the various complex problems it raises.[6] As such it is reasonable to adopt a diverse approach that reaches across music-studies, touching on music as aesthetic experience, intellectual endeavour and cultural artefact.

[6] For a discussion of cross-cultural agreement and normativity see Pryer 2013.

1.2 Summary of Chapters.

Chapter 1 introduces the thesis, giving an outline, overall aim and summary of chapters. The remainder of the chapter gives characterisations of certain terms that will be relied upon in the thesis. *Metaphor* is defined as it relates to musical movement– the central topic of chapters 2 and 3– and a discussion of *concept* and *nonconceptual* provides some background to these terms that will be frequently referenced throughout in developing a phenomenal view. In order to suitably define *concept/nonconceptual* it is necessary to draw on philosophy of mind literature, but with the caveat that no novel claims are made that relate to this literature.

Chapter 2 introduces the topic of *musical movement*, suggesting that music has been described in terms of movement for centuries. A phenomenal view is argued in relation to this particularly significant and well-reported feature of the musically aesthetic. Key to arguing against abstract views of musical movement is the advancement of a *psycho-acoustic* conception, whereupon the neat division between the *acoustic* and the *musical* is challenged with an account of the musical that invokes both acoustic and psychological features. Roger Scruton's theory of the metaphorical basis of music and movement is taken as a vantage point from which to discuss the relation between music and sound (the emergence of 'tone'), and the manner in which listeners engage with music– conceptually or nonconceptually. The main portion of the chapter discusses a range of studies that suggest musical movement can be understood under a psycho-acoustic conception. (Clarke, Johnson, Acitores.)

Chapter 3 considers the relation between musical movement and veridical movement. Three contrasting positions on this relation are outlined, the first prescribing a dualism between musical and veridical movement (*abstract*), the second suggesting there is no conflict between musical movement and veridical movement (*humanist*), and a third suggesting that musical movement is a

perceptual illusion (*phenomenal)*. The chapter begins by outlining some of the precedents for a psychological theory of the sort I am arguing and also frames the discussion within some of the broader literature on musical movement, continuing from the discussion of Scruton in chapter 1. Given that the abstract view is challenged elsewhere, only brief notes are offered against it. The humanist position is challenged for its rejection of metaphor and illusion but aligned with the phenomenal view for placing music in the realms of everyday human life. The phenomenal view is defended against some challenges in the literature before three models from psychology are discussed to evidence the claim that musical movement is a perceptual illusion: ecological theory, cognitive categorisation and image schemata (the latter revisited from chapter 1.)

Chapter 4 suggests that, following chapter 3, expounding a phenomenal theory of musical movement will depend on the viability of a phenomenal view of the musically aesthetic generally. This chapter thus introduces the terms *internalist* and *externalist* to stand for more general formulations of conceptions of musical experience. After defining these terms the lineage of conceptions of aesthetic experience is traced from Dewey through to Beardsley and Dickie, identifying certain key distinguishing claims of the externalist versus internalist conceptions while critiquing the former at the service of the latter. Possibly the most important objection to the internalist view being argued is that it suggests an intolerably narrow, formalist conception of music experience. Certain examples of this objection are considered (Walton, Danto, Iseminger) and a more moderate alternative is offered in the form of a view on *acousmatic listening*.

Chapter 5 suggests that the aspect of musical movement that can be elucidated using psychological and analytic models is the *descriptive* rather than *evaluative*, implying that the value of musical movement is intrinsic and/or non-explicable. After reviewing issues concerning normativity and the relation of musically aesthetic value to other values, a bespoke characterisation of value is given that does not have normative implications. Definition of terms used in aesthetics such as *intrinsic* and *extrinsic* value is given before criticising externalism about intrinsic value and a version of externalism that is internalist only about intrinsic

value. Musically aesthetic value is then posited as a *contingent fact* about the musically aesthetic, since it seems that our functional accounts are very effective in explicating the descriptive element but make no reference to value. The final sections argue that our common nonconceptual psychology can account for the intersubjectivity of musically aesthetic value, and demonstrates these commonalities amongst experiences by providing an analysis linking free conceptual description in the literature with the nonconceptual psychological processes that are coextensive with experience of the musically aesthetic.

1.3 Understanding the term 'metaphor'.

One way to view musical movement is as a metaphor, but this view clearly depends on what 'metaphor' is taken to mean. Some of the disagreement surrounding the notion of the metaphor of musical movement may be attributable to the ambiguity of this word 'metaphor'. It is generally agreed that metaphor involves a mapping across domains, although it seems that not all cross-domain mappings are metaphors: if I represent an election result using a bar chart, I map *votes cast* onto *geometrical shape*; for this representation to be successful the underlying structure of *number* and *space* must cohere, in spite of these being distinct domains. It seems unhelpful to call this metaphor, although the points of distinction between such graphical representation and metaphorical representation are not immediately obvious.

The definition of 'metaphor' is a point of dispute in the debate between Budd, Scruton and Davies considered in chapter 2, and while Scruton (2004) concedes that to explain what a metaphor 'involves' would entail explaining other complex issues like 'double-intentionality', Budd identifies the pertinent sense of metaphor as pertaining to 'characterisation' and gives a set of conditions to be satisfied if a characterisation is to count as 'metaphorical': [7]

[7] Along with Roger Scruton's conception of music as metaphor (1997, 1999), numerous other aestheticians have given careful consideration to metaphor, including Beardsley (1967), Goodman (1968), and Levinson (2001); see Cohen (2003) for a review.

> The first is that it indicates a feature of something by using a term or phrase the primary application of which is restricted to a different domain. The second is that no secondary application to the domain referred to by the characterization has so established itself as to constitute a different sense, another (literal) meaning of the term or phrase, one that could in principle be fully mastered without a grasp of the primary application informing that mastery. By an aesthetic metaphor I mean a metaphorical characterization of some item that is intended to indicate some aesthetically significant feature or aspect of the item, the experience of which constitutes part of the aesthetic appreciation of the item.[8]

These conditions may provide something of a starting point, although immediately the notion of characterisation invites a contrast with the preconceptual metaphorical schemata considered below. Leaving this aside for the moment, the first condition seems essential in prescribing some transfer across domains. The second suggests that once a mapping across domains has established a standard use in language it ceases to be a metaphor. In this sense, spatial terms such as 'high' and 'low' are not used metaphorically when describing, say, the stock market or a mental state.

To first consider the condition that a metaphor can only obtain where the secondary use of the term cannot be mastered without first gaining mastery of its primary usage. Consider the metaphor Leo Tolstoy depicts in *War and Peace*, conflating the line that divides two armies with the line that separates life and death:

> The enemy ceased firing, and that stern, threatening, inaccessible, and intangible line which separates two hostile armies was all the more clearly felt.
>
> One step beyond that boundary line which resembles the line

[8] See Budd 2008.

> dividing the living from the dead lies uncertainty, suffering, and death. And what is there? Who is there?– there beyond that field, that tree, that roof lit up by the sun? No one knows, but one wants to know. You fear and yet long to cross that line, and know that sooner or later it must be crossed and you will have to find out what is there, just as you will inevitably have to learn what lies the other side of death.[9]

This is truly a metaphor in that Tolstoy is suggesting that to cross a physical terrain is just to cross over to death, rather than the literal sense that to cross such terrain may result in death. This being said, the metaphor does owe much of its poignancy to the aptness of the source domain (death.)

To map the concept of death onto that of traversing a terrain is to imagine life as one space and death as another, with the progression from life to death imagined as locomotion across this space. This metaphor is a characterisation of an event, a transfer of concepts across domains, but one that has also developed a normative sense in the term 'to cross over'. The phrase 'to cross over' encompasses Tolstoy's metaphor but would seem to fail to satisfy Budd's second condition, given that mastery of the phrase 'crossing over' does not appear to demand mastery of the concept of traversing a space. Indeed the term 'passed away' has similarly spatial connotations, suggesting travel from this life to elsewhere, although the claim to normativity of this use of the phrase is particularly strong given that its lineage goes at least as far back as The Lay Folks Mass Book, published in 1375.[10]

The Tolstoy passage can show that the normativity of a term that derives meaning from a domain other than that to which it is applied does not extinguish the potential of the equivalent mapping across domains to operate as metaphor. The term 'crossing over' or perhaps 'crossing from life to death' may be mastered

[9] Tolstoy 1869/2007:110.
[10] 1375; *Lay Folks Mass Book* (MS. B) 112: "God lord graunt .. rest and pese Þat lastis ay to christen soules passed away."

without knowledge of the source domain– that of traversing a physical space– but Tolstoy may still construct a metaphor with the mapping of 'death is movement through space'. Analogously, a melody may be characterised in spatial terms such as *contour, ascending*, *descending* etc., but the normativity of the secondary usage of such terms does not thus eliminate the potential of us imagining a melody as moving in a manner accordant with such characterisations. Just as a supposedly 'dead' metaphor like 'crossing over is death' can be revived in Tolstoy's imagining of crossing a line on a battlefield, there are innumerous ways in which music reinvents or revives the supposedly dead metaphors comprising much of the musicologist's lexicon.

The next element of Budd's description of metaphor to consider is the notion of 'characterisation'; it can be argued that this sense of metaphor is wholly inappropriate in understanding metaphor in music. It seems that by adopting the notion of metaphorical characterisation Budd circumvents the issue of experience to target discourse about music: 'It has often been stressed that the non-technical characterization of the materials of music… is mostly in terms the primary application of which is to non-audible sensible and other qualities, and the ordinary language of musical description is rife with metaphor and other forms of figurative language.' (Budd 2008: 2.) However, while terms used to characterize music are important indictors as to the nature of musical experience, it should be made clear that the way that sound references another domain is distinct from the way that linguistic concepts do.

I will argue that musical movement operates as an embodied metaphor in experience, which would restrict characterisation to matters of music-discourse rather than experience. But without relying on the discussion of psychology, music can still be presented as a phenomenon that resists explanation in terms of metaphor as characterisation. Since music's domain is sound, it will meet Budd's first condition– that it reference something 'the primary application of which is restricted to a different domain'– just when it refers to something that is not sound. As such, under the view that metaphor entails characterisation– which itself entails some conceptual ascription– it becomes impossible to

distinguish a metaphorical relationship from other relationships that might more usefully be described as literal. With a view of metaphor as entailing some conceptual or lingual representation across domains, all discourse on music, indeed all that music can reference beyond itself, is metaphorical.

However, it is clear that sounds can characterise non-sounds in a way that should be understood as literal rather than metaphorical. Most obviously, a sound can characterise its source in a literal way: an instrument can be understood in terms of its sound; for example the frequency range and sustain of the sound of a guitar will characterise the guitar itself. But the difference between literal and metaphorical reference is relevant to music more generally. To what degree was Jimi Hendrix's *The Star Spangled Banner* a metaphor of war, and to what degree a direct reference to war? Did his guitar represent accurately enough the sounds of bombs falling, machine gun fire and explosions that we might say he simulated the sounds of war literally? Or did he draw on the toxic feeling surrounding the Vietnam War to attack established, traditional American ideals, just by counter-positioning the national anthem with guitar effects? Granting that Hendrix does attempt to simulate the sounds of war, it could be objected that he doesn't reference 'The Vietnam War' but in fact merely references 'the sound of the Vietnam War', so valorising the position that this is not a case of literal reference to non-sound but is in fact a literal reference to sound. However, this position would have the consequence that Hendrix's piece is not about the Vietnam War but is rather about the *sounds* of the Vietnam war, which seems absurd. An image of an object references that object, not the sense-modality of that object: a picture of a car is a literal representation of a car; it is not a literal representation of the appearance of a car. The effect of *The Star Spangled Banner* lies in its reference to the concept of 'The Vietnam war' as juxtaposed with the famous notes of the national anthem.

Steve Reich's *Different Trains* provides another important example, where various aspects of the piece make references to trains. *Different Trains* has a central conceptual theme– that of the stark contrast between the long train journeys Reich, a Jew, made across America during WWII and those he may have

been making were he living in Europe at the time. This narrative is constructed using both samples of trains and speech, and by analogizing the sounds of trains through music. It is arguable that certain tonal aspects are metaphorical representations of trains, at least in a sense of 'metaphor' that would be serviceable when describing, say, the musical score as a metaphor. For example, the violin parts that oscillate between fourths in semi-quavers through much of the piece, mimicking the sound of a train travelling along a track, seem to use tonal music to point towards the narrative of the piece. While these tonal aspects may be more obviously metaphorical, the audio samples used, conversely, are paradigmatic literal references, given that they reproduce the target domain exactly. The difficulty with an account of metaphor as characterisation is that it is not clear how this distinction would be made, given that both audio samples and tonal music make reference beyond the domain of sound to a domain of concepts.

Music can utilise an endless range of references beyond itself, and as such Budd's decision to promote a notion of metaphor as 'characterisation' has limited instructiveness. Indeed, we can generalise beyond metaphor to posit that extrinsic reference is analytically problematic due to its contingency. Consider the introduction to 'Willie the Pimp' by Frank Zappa. This passage can reference the instrumentation of *solo violin*, and the true referent is indeed a solo violin on the 1969 recording. However, the introduction to Dweezil Zappa's version of 'Willie the Pimp', played with his band *Zappa Plays Zappa* and with tremendous fidelity to the original, will also reference *solo violin* when in fact the introduction is played on electric guitar with modelling effects and techniques that simulate a violin timbre. The two introductions are very similar, and Dweezil will actually go on to play both the guitar part and violin part in the verse on a single guitar using an octave pedal. Were both versions heard at a live performance, two distinct experiences would be expected– one that ascribes the violin sound to a violin and another that ascribes it to a guitar– but were the two versions heard from a recording, without preeminent knowledge of the background or context, both experiences would be identical with respect to instrumentation. This then is an example of how the same musical sound can afford a range of experience that

defies its own internal structure. There just cannot be an account of these references in terms of the musical sound that supports them, since the potential of musical sound to reference is not determined by its own structure but by the chaos of culture in which it is found.

For these reasons, then, it is important to distinguish the sense of metaphor relevant to music from other forms of metaphor and from literal reference. A view of metaphor as characterisation will not be narrow enough to exclude the abundance of literal references musical sound makes, whereas the clause that normativity of metaphoric terms negates them as true metaphors can be disputed with examples of mappings across domains pertinent to such terms operating as metaphor irrespective of the particular usage of the secondary term. I have also argued that musical sound resists explanation in terms of the references it makes beyond sound, given that almost identical sounds can have distinct references.

The concept of metaphor favoured here avoids these problems by prescribing an embodied, nonconceptual source, thus setting the relevant sense of metaphor against other cross-domain representation. By making the source and experiencer co-terminous, the problems associated with extrinsic reference can be overcome. In this way, the relevant sense of metaphor splits not just from conceptual representation but, I argue, from representation *tout court*. Music does not represent listeners' own psychological structures, but rather listeners execute those structures when listening to sound. The following chapter will discuss several approaches from music-psychology that account for the experience of musical movement with nonconceptual metaphorical structures.

1.4 Understanding the term 'concept'.

The phenomenal view assumes that the experience of musical movement is nonconceptual, and is contrasted with the abstract view where the experience of musical movement is assumed to be conceptual. How 'conceptual' and

'nonconceptual' are characterised is therefore central to how the distinction between a phenomenal and abstract view is to be understood. While adequate characterisation of both terms will require drawing on work in philosophy of mind, this should not be seen as tangential to music-study. I argue that a clear understanding of these terms is instructive in describing music experience since: firstly, a phenomenological view can provide insight into musical movement and rests on the meaning of the terms 'concept' and 'nonconceptual'; secondly, the terms are in use in musicology and music psychology to describe types of music experience or conceptions of music experience, and as such warrant clarification; thirdly, matters concerning the fundamentals of musical movement have substantive links to certain paradigms within the philosophy of mind, thus affording fresh insight; and lastly, the philosophy of perception will improve our understanding of musical movement insofar as musical movement is perceptual and the philosophy of perception improves our understanding of the perceptual. It should be stressed that the purpose of this chapter is not to make claims about the philosophy of mind but to make claims about musical movement.

This section explores the literature in some detail to arrive at the following characterisations:

concept: a constituent of thought; a mental particular, identified with a mental representation, that is specifiable in terms of contents understood as abstract objects (e.g. properties, types, relations, propositions, sets, etc.), enabling mental representations to be true or false.
nonconceptual: pertaining to an experience that is inconsistent with, and cannot be captured by, a subject's concepts.

Given that 'nonconceptual' is fundamentally a contrastive term, it is necessary to begin with the notion of 'concept'. It is important to first identify a sense of 'concept' that does not imply a psychological entity: on this view concepts are understood in accordance with the framework created by mathematician and philosopher Gottlob Frege. Concepts are identified as 'senses'– abstract objects pertaining to propositions– and mediate between experience and the world (or,

more precisely, between 'modes of presentation' and 'referents'.) One prominent supporter of this view is Christopher Peacocke, who makes the case that concepts should be distinguished from mental representations as there are concepts that will never be possessed by any thinker:

> 'There are concepts that will never be acquired' cannot mean or imply 'There are mental representations which are not mental representations in anyone's mind'. If concepts are individuated by their possession conditions, on the other hand, there is no problem about the existence of concepts that will never be acquired. They are simply concepts whose possession conditions will never be satisfied by any thinkers. (Peacocke 2005: 169).

While this view may solve a problem concerning the existence of concepts that are never acquired, it has been argued that a view of concepts as mental representations is equipped to deal with the same problem by using a type/token distinction, where a concept that is never acquired would be a 'type' that is never 'tokened'.[11] But indicating this view of concepts as Fregean senses is useful in carving out the relevant sense of 'concept', since it allows the elimination of one possibility.

Given that the relevant sense of 'concept' to a phenomenal view is that pertaining to a psychological entity, there are two main views to consider: concepts as mental representations and concepts as abilities. On the latter view, concepts are not given as mental representations or as abstract objects existing independently of minds, but are abilities unique to a psychological agent. A concept can be understood as an ability to discriminate objects or to respond appropriately to objects. The abilities view is associated with Ludwig Wittgenstein (1953/1958), who argued that the meaning of a word is not found in an abstract object or a mental representation but in its use. A word like 'game' may be unyielding to a classical analysis of concepts in terms of necessary and sufficient conditions, and arguably making reference to a mental representation of 'game' only adds

[11] Margolis & Laurence 2014.

another thing to be explained. However, the word has meaning in virtue of its usage: it operates in the sphere of human interactions and that is its meaning.

The main motivation for the abilities view derives from certain problems with the representational theory of mind, so in order to understand the benefit of an abilities view it is necessary to understand the view of concepts under the representational theory of mind. An important characterisation of concepts under this view is as *mental particulars*. This view can be attributed to both John Locke (1690/1975) and David Hume (1739/1978), for whom concepts– or their corresponding term, 'ideas'– were mental images. More recent commentators tend not to imagine mental representations as images but rather as constituents of a symbolic system with a syntax and semantics, described by Jerry Fodor as the *language of thought*.[12]

The representational theory of mind is the prevailing theory in cognitive science, having found considerable support. One strength of this theory is its efficacy in combatting problems such as the productivity of thought– the human ability to produce an endless range of thoughts– and the systematicity of thought– the manner in which thought is ordered in a way that reflects the structure of propositions. The other main advantage to mental representations is that they can demonstrate how semantic and physical-causal properties can be combined, since computers provide a robust model of how these properties are coordinated in a representational system. A computer will make changes to its physical state in a way that reflects the interpretation of its internal representations. As such, that human rationality can be realised in a physical system like the brain can be understood by maintaining that mental states are computations over internal representations.[13]

Eric Margolis and Stephen Laurence illustrate the strength of the language of thought version of representational theory in accounting for the productivity of

[12] See Fodor 1975.
[13] See Margolis and Laurence 2007: 564.

thought. Following work by the psychologist George Miller (1995), they ask us to consider how many 20-word sentences can conceivably be understood:

> Assuming conservatively that there are on average 10 words to draw from for each word choice as a sentence is constructed, the implication is that we understand at least 10^{20} 20-word sentences. That's one hundred million trillion of them. By comparison, the human brain contains roughly 10^{11} neurons, and the number of seconds in the history of the Universe is estimated to be on the order of 10^{17}. So assuming that each sentence corresponds to a distinct thought, and sticking only to 20-word sentences (that is, ignoring not just longer sentences but also shorter ones), the number of thoughts we arrive at is more than a billion times the number of neurons in the brain and about a thousand times the number of seconds in the history of the Universe.[14]

While this may be somewhat hyperbolic– given all the duplications, redundancies, etc.– implication is that, with the 20-word constraint removed, the human mind can understand a limitless range of novel sentences, even though it understands a limited number of words. A great success of the language of thought version of representational theory of mind, then, is that it can account for this productivity in a simple way: by ascribing to mental states features of language like compositional semantics, a subject/predicate distinction and certain logical devices. It is difficult to see how a view of concepts can account for these features of thought without incorporating a system of mental particulars with functions between them.

Arguments for the abilities view will take the form of objections against the representational theory of mind, including for example, the vicious regress of representational states: if a mental state represents an object it seems that to have a function it would need to be read by another state, which would need to represent the representation and so on *ad infinitum*. Relatedly, and as mentioned above, some have argued that the representation simply adds another step to be

[14] Margolis and Laurence (2007: 563).

explained. Daniel Dennett argues that we have many beliefs that may not ever obtain as mental representations, such as the belief that *Zebras don't wear overcoats in the wild* (Dennett 1977.) Finally, successes in embodied cognition and psychological models like connectionism have provided explanatory frameworks that do not imply representation.[15] Margolis and Laurence (2007) offer a defence to these objections.

To summarise: concepts can either be understood as (i) Fregean senses, (ii) abilities of psychological agents or (iii) mental representations. Given that the phenomenal view I am advancing proceeds from an argument about the psychology of music experience, it should be noted that both (i) and (ii) will offer nothing substantive, save for helping define (negatively) the relevant sense of concept. This is because (i) and (ii) say nothing of the nature of mental processes, nor of the relation between mental states and the world. The Fregean view conceives of perceptual states in terms of 'modes of presentation' which do not help explain characteristics of thought but rather how thought can map onto the world outside it; the abilities view has currency as an anthropological framework but again offers no insight into mental processes themselves, even if it might allow that concepts are cognitive entities. A theory that utilises mental representation can give an account of the properties of mental processes just because such a view can claim that mental processes represent the properties of objects or language.

Concepts, then, are mental particulars, identified as mental representations, that are subject to rules similar to natural language such as compositionality and syntactical structure. In developing an argument for a phenomenal view I have included views that construe musical movement as a matter of inferring concepts under the rubric of 'abstract views', which needs clarifying as it is not immediately clear how a mental representation can be called abstract. Mental representations are subjective and private, but while particular mental

[15] See Shapiro (2010) for review of recent work in embodied cognition and see chapter 1 for discussion of connectionism.

representations may be unique to their possessor, they can still belong to a *type.* Consider the sentence:

Rose is a rose is a rose is a rose

In one sense of 'word' this sentence contains 10 words, in another sense it contains 3. The first sense of 'word' here refers to *tokens* while the second sense refers to *types.* If I write down the word *rose* on a pad, the ink on the page will be a unique token of a type of word. The same type of word will be a token if I utter the word *rose*, or if I type it, or if someone else writes or utters it. Tokens need not resemble each other to belong to the same type: for example the letter *a* and the letter *A*. In this way, we can imagine how my concept *x* is distinct from any other person's concept *x* while being of the same type– having the same content. Types are independent of minds, are sharable and are not tied to a place in time: they are abstract and unique. Tokens, on the other hand, are concrete particulars like pixels on the computer screen, ink on the page or my mental states. If concepts did not have the property of being abstract– what Laura Duhau calls 'the Publicity Constraint'– communication would be impossible.[16] On this understanding of concepts as mental representations, then, concepts are tokened as subjective mental representations but belong to types, making them abstract in the senses alluded to. A theory that construes musical movement in terms of conceptual content thus construes musical movement as abstract.

1.5 Understanding the term 'Nonconceptual'.

Some initial caveats: the phenomenal view need only commit to the view that perception *can be* nonconceptual, not the view that *all* perception is nonconceptual. The weaker position is sufficient to permit the claim that a phenomenal view does need to commit to– that musical movement is nonconceptual. It should also be emphasised that I am here dealing with the

[16] See Duhau 2011:364.

experience of nonconceptual perception, implying that nonconceptual perception occurring at a sub-personal level is not relevant.

The experience of nonconceptual perception is characterised as an experience that is in some sense inconsistent with the experiencer's propositional attitude: i.e. the attitude determined by the experiencer's concepts, where concepts are mental particulars or representations. There are several senses in which a subject's propositional attitude might be inconsistent with her experience. It is apt to list some of these here, with the note that, for reasons pertaining to the cross-disciplinary nature of this thesis, only two issues will be dealt with in any detail thereafter: it has been argued that

(1) perceptual experience is analogue where conceptual content is digital (Dretske 1981: Ch.6);

(2) perceptual experience is unit-free, making it impossible to express in propositional terms (Peacocke 1986, 1989);

(3) without recourse to the nonconceptual, it is unclear how the acquisition or learning of concepts can be explained given that an account that precludes the nonconceptual would need to presuppose possession of the very concepts that are acquired in perception;

(4) perceptual experience is determined by situation in a way that is not captured by the subject's concepts, for example the experience of the colour red differs greatly under different light-conditions in a way that is not captured by the concept 'red' (Kelly 2001);

(5) a powerful utility for proponents of nonconceptual perception can be found in the argument from infant/animal cognition, which claims that infants and animals appear to have perceptual experiences of objects commensurate with our own but do not adopt a propositional attitude towards such objects (Peacocke 2001);

(6) perception may present states of affairs that are contradictory or impossible, such as perceptual illusions or Escher drawings;

(7) perceptual experience may be more fine grained than a subject's concepts allow.

An overview of each position is given by Bermudez and Cahen (2008). Given the remit of this essay, that most attention has been given to (6) and (7) in the literature, and that (6) and (7) are directly relevant to the argument developed below, I will not discuss (1)-(5) further.

The recent debate on the nonconceptual has been shaped in large part by arguments concerning illusion. Tim Crane (1988) gives an early account of the nonconceptual proceeding from reflection on the Waterfall Illusion. This type of illusion, known as 'motion aftereffect', presents an experience of movement in an object that does not move. Since the subject holds the belief that the object does not move but experiences it as moving, she holds a belief that contradicts some aspect of her experience. Insofar as a subject cannot hold contradictory beliefs– i.e. the belief that the object is moving and that it is not moving– some aspect of the experience of motion aftereffect is nonconceptual, namely the aspect of the appearance of motion. I consider this contradiction further below in the section on musical movement as perceptual illusion.[17]

(7) above also provides a useful characterisation of the nonconceptual as experience that is at a finer grain than a subject's concepts can allow. Bermudez and Cahen summarise thus:

> Arguably, I can perceptually discriminate many more colors and shapes than I currently have concepts for. Although I may be capable of discriminating between two color chips of very similar shades of red, red_{27} and red_{29}, not being an expert on colors I will not have the concepts red_{27} and red_{29}. With my limited conceptual repertoire, I will correctly judge both color chips to be red. However, I will so judge on the basis of experiences whose contents are much more specific and fine grained in a way that cannot be captured by my conceptual capacities. (Bermúdez and Cahen: 2008)

[17] For further discussion see Mellor (1988), Crane (1988), Crane (1992), and Gunther (2001), Bermudez and Cahen (2008).

It seems, then, that we can discriminate between colours, shapes, sounds etc. in a way that is limited only by the physiology of our relevant perceptual capacities and not by our conceptual capacities. The fineness of grain of nonconceptual discrimination as it applies to music perception is considered below on the section on cognitive categorisation.

It should be noted that proponents of the nonconceptual occupy one side of a debate, where proponents of the opposing side argue that all perceptual experience is conceptual. The most important argument against the notion of the nonconceptual relates to what Wilfred Sellers termed *the myth of the given*. Sellers was aiming his critique at a form of foundationalism, the thesis that all knowledge rests on some basic foundation of justified belief or non-inferential knowledge. This foundationalist view of epistemology deflects scepticism about the possibility of certainty in knowledge by invoking a semantic given– a concept or concepts that do not rely on prior knowledge but has meaning derived immediately from sensation. However, while the meaning of such concepts are given in perception, they must also occupy the 'space of reasons'– they must be able to relate to other concepts and share similar properties like propositional form. Simply put, the 'given' is a cognitive state that has some positive epistemic status– i.e., constitutes knowledge or some function of knowledge (like justification)– and that is both epistemically independent– does not depend on prior knowledge– and also holds in some inferential relation with prior knowledge. According to John Mcdowell, 'Givenness in the sense of the Myth would be an availability for cognition to subjects whose getting what is supposedly Given to them does not draw on capacities required for the sort of cognition in question' (2008: 1.)

The myth of the given, then, presents a major obstacle to the idea of nonconceptual content, motivating *conceptualism*: the view that all perceptual experience is conceptual. Since all cognitive states must occupy the space of reasons, all cognitive states would appear to need to be of a homogeneous kind, and since we are thinkers whose thought has concepts as constituents, all cognitive states must be conceptual. Again, it is not in the remit of this essay to

weigh in on such a debate, but it is clear that both sides have a burden of proof. An argument for nonconceptual perception must establish how the nonconceptual can enter the space of reasons and so link with the conceptual. An argument for conceptual perception must explain the fineness of grain of perceptual experience, how a homogeneous content of perception can contradict itself in illusory experience, the cognition of non-human animals who do not appear to have concepts, and those other claims– (1)-(4)– to the nonconceptual above.[18]

The final point that must be noted to clarify what is meant by 'concept' and 'nonconceptual' is that nonconceptual experience can be cast as a form of representational content, such that to perceive a shade of red nonconceptually is to represent a particular content. Indeed, the nomenclature 'nonconceptual content' is preferred by most philosophers writing on the nonconceptual. But this is not just a terminological issue, since the employment of a system of content and representation in describing the nonconceptual would render opaque the distinction with conceptual, understood as a mental representation. Significantly, the psychological models I review on behalf of the phenomenal view are united by their resistance to this commitment to representational content (with the possible exception of cognitive categorisation below, when unqualified), where nonconceptual is opposed to conceptual understood as entailing mental representation.

It is thus necessary to consider just one other way of distinguishing the notion of nonconceptual from that of mental representation, so as to deflect both the

[18] Conceptualists have rebutted the fineness of grain argument by appeal to *demonstrative concepts* (McDowell 1994, 2006, Brewer 1999, 2005). According to this view, we are being overly general in restricting the contents of perception to concepts such as red_{27} or red_{28}, since perception may have as its content demonstrative concepts like *that shade*. This tactic attempts to show that conceptual capacities are as fine grained as discriminatory capacities. Some information is clearly lost when a demonstrative concept transitions to a belief (e.g. 'that is red_{27}'), but this is due to a transition from a more determinate concept to a less determinate concept. A key objection to this argument is that concepts must be constituents of thoughts, which implies that they must be available independently of the presence of a particular perceptual object. This has been called 'the re-identification condition' on concept possession (Kelly 2001). See Bermudez and Cahen (2008) for further points against demonstratives. For arguments for the nonconceptual against *the myth of the given* see Heck (2000), Peacocke (2001), Lerman (2010.)

problem of distinguishing nonconceptual from mental representation and the problem of *the myth of the given*. This is to appeal to a *content/state* distinction.[19] On this view, all content is conceptual but it is possible to enter into a nonconceptual mental state; as such, *the myth of the given* evaporates and conceptualists can be appeased. Heck (2000) introduced the state/content distinction, suggesting that

> one might think that there is no reason we must distinguish the kinds of contents beliefs and perceptions have: Whatever one might take the contents of beliefs to be– Fregean Thoughts, say– there is no reason that perceptions cannot have the same sorts of things as their contents; it is just that the contents of a thinker's perceptual states can, while the contents of her beliefs cannot, involve concepts she does not possess. (p.485)

A 'concept-dependent state' cannot be entered unless the subject has the concepts necessary to specify its content (where 'content' is understood as an abstract object and bearer of truth that is irrespective of a subject or context); a 'concept-independent' state can be entered when the subject does not have the concepts required to specify its content.[20]

Philosophers have tended to favour the content view of nonconceptual perception, since the burden of truth is to suggest how a state can be concept-independent. By appeal to nonconceptual content it is clear how a state might be concept-independent: it is a bearer of nonconceptual content.[21] However, Laura Duhau (2014) makes a case for the state view by suggesting that a Fregean semantics can be maintained to account for a subject's cognitive relationship with the world (or truth-conditions) but that the distinction between states is at a psychological level, concerning mental representations.

[19] For more on the state/content distinction see Byrne 2005; Crowther 2006; Heck 2000, 2007; Speaks 2005, Duhau 2014.
[20] On Fregean Thoughts see Noonan 1984.
[21] See Bermudez 2007.

For the purposes of this essay, the state view of the nonconceptual can be adopted, and the distinction between a concept-dependent and a concept-independent state can be given as a distinction between a state mediated by a mental representation and a state that is not mediated by a mental representation. The psychological studies reviewed from embodied cognition and ecological theory support the view that the notion of representation is idle in explanations of perceptual experience. If perceptual experience is minimally a conscious psychological response to something we become acquainted with through our senses, it is not clear why it must be understood in terms of some other thing, such as a sentence or proposition. If I look at a green desk, what is it to say that I 'nonconceptually represent *that it is green';* if this does not mean that I entertain the *thought* that it is green, or the utterance 'it is green'– both of which must be conceptual– what is it 'to represent *that it is green*.' It may be that making my experience about the greenness of the desk, without entertaining any thoughts concerning its description, takes great concentration, and only follows from the thought 'what is it to experience greenness nonconceptually?' The ascription of mental representation to such an experience cannot be justified in the way that such an ascription to conceptual states is justified, given that: my nonconceptual experience of greenness does not have the characteristics of thought such as productivity and systematicity; and, insofar as I do not take up a propositional attitude– such as belief– towards the green desk, there are no truth conditions for a semantics to deal with.

The point at which an explanation of nonconceptual content would bottom out is likely the point at which the constituents of propositions are explained, meaning recourse to models like Russellian or possible-world semantics. But considering this area will not greatly enrich our understanding of the distinction between abstract and phenomenal views of musical movement, given that the purposes of this section are to indicate the relevant sense of concept– psychological, mental representation– and give reasons why recourse to nonconceptual content is instructive– e.g. illusion and fineness of grain of perceptual experience– with the intention of using the terms 'conceptual' and 'nonconceptual' (or their derivatives) to apply to conceptions of musical movement.

1.6 Concluding Summary.

Concepts are mental particulars, identified with mental representations, that belong to types and so are sharable and abstract. This is the default position in philosophy of mind, associated with the representational theory of mind, and is to be distinguished from two other distinct views– that concepts are abilities and that concepts are Fregean senses. The view of concepts as mental representations can account for the systematicity and productivity of thought by giving mental representations rules consistent with language, such as syntax and compositionality. Representational theory of mind can also draw on extensive research in artificial intelligence to show how a physical form can carry out computations over representations.

Arguments that perception is or can be nonconceptual are given above in (1)-(7), but I focused on the argument that illusion presents a contradiction that cannot obtain over a homogeneous content and the argument that a subject's perceptual experience has a finer grain than her conceptual capacities allow. *The myth of the given* presents an obstacle to a view of perception as nonconceptual by suggesting that the content of perception must be of a homogeneous kind to permit of inferential relations between perception and a subject's concepts. This problem that the nonconceptual seems excluded from the space of reasons serves to motivate the view that all cognitive content is conceptual. The last point can be conceded to the conceptualist if appeal is made to a state/content distinction where all content is given as conceptual but concept-independent states are possible. A state/content distinction is also useful in developing the sense of nonconceptual pertinent to this essay, which does not employ, or have use for, the notion of mediating representations.

The extended discussions of both concept and nonconceptual also help elucidate the key point that characterises the distinction between phenomenal and abstract views, made in the beginning of chapter 1: that the latter conceives of the musically aesthetic as independent of perception while the former conceives of the musically aesthetic as dependent on perception. In the view given above,

the contents of concepts are abstract particulars and so are independent of any particular instance of perception, while nonconceptual experience is understood as a mental state that does depend on a particular instance of perception. No further focused treatment of issues in philosophy of mind will be given in the thesis, but the above serves to clarify key terms that will be used, including: conceptual, nonconceptual, experience, mental representation, abstract, content, syntax, semantic.

Chapter 2 makes use of the terminological definition wrought above by giving an account of the psycho-acoustic basis of musical movement. While developing terms from philosophy of mind and cognitive science is useful in understanding how music is perceived and experienced, the primary focus of the following is the musically aesthetic, conceived either as a musicological, analytical or aesthetic object.

Chapter 2

The Psycho-acoustic Basis of Musical Movement.

2.1 Introductory Summary.

Since the ancients, those who have devoted their thoughts to music have tended to rely on the idea of *movement* when lending description to their experience. There is evidence that movement has been identified as a fundamental aspect of music for several millennia, the concept having a place in Aristoxenus's treatise *Elementa harmonica,* dated c.300 B.C.[22] Concepts of motion and space are central to our understanding of music, in analysis, aesthetics and psychology. Philosophers have long seen movement as a primary research area in musical aesthetics, with Eduard Hanslick coining the phrase 'tönend bewegte Formen' (sonically moving forms) in the 19th century. Today, musicological analysis employs a lexicon steeped in reference to motion and space, with these concepts also being given extensive attention in the field of empirical psychology.

That the concept of musical movement has such utility suggests its significance to musical experience. To describe a melody as *ascending* is not just to employ a given lexicon, but to reference a feeling attendant with a particular kind of tonal sequence. The sense of rising up through several plateaus in space is powerful when listening to the cyclic modulations of the refrain of *Golden Lady* by Stevie Wonder. Relatedly, a V7b9 chord will seem to subject a force towards the I chord in a manner the (suitably encultured) listener perceives as transparent and

[22] See Lee Rothfarb, 2002.

unproblematic. Such fundamental musical effects suggest equally fundamental questions: who or what moves and how is this apparent movement possible?

The first aim of this chapter is to develop the distinction between a *phenomenal view* and an *abstract view* of *musical movement*. This approach focuses on a particular feature of the musically aesthetic so as, firstly to circumscribe an initial explanandum narrower than just 'the musically aesthetic', and secondly to develop the distinction in relation to a particularly significant and well-reported feature of the musically aesthetic. The phenomenal view advanced suggests that musical movement is rooted in nonconceptual, embodied experience.

A second, related, aim of this chapter is to develop a distinction between *acoustic* and *psycho-acoustic.* While it has been claimed, notably by Roger Scruton (1997), that the phenomenon of musical movement cannot be captured adequately by an account of the acoustic properties of sound, this does not support the claim that musical movement is *specifically musical* or *irreducible*: explanations in terms of acoustic properties do not exhaust the possibilities of explanation in non-musical terms, since a *psycho-acoustic* account that entails listener psychology is available; certain features of musical experience such as the sense of movement may be opaque under an acoustic conception of musical sound but transparent under a psycho-acoustic conception. The main portion of this chapter argues a psycho-acoustic conception by finding evidence in recent researches in music-psychology; the phenomenal view offered rests on a psycho-acoustic conception.

Chapter structure:

1. Describing music as movement.
2. Discussion and characterisation of the *abstract* view.
3. Further characterisation of the *abstract* view by considering the distinction between *musical, acoustical* and *psycho-acoustical* accounts of musical movement.
4. Drawing on existing work in music-psychology to give a psycho-acoustic account of musical movement.

5. Giving a psycho-acoustic account of the functions of music perception that underlie musical movement.
6. Concluding Summary.

2.2 Describing music as movement.

Consider the first phrase of the nursery rhyme 'Twinkle Twinkle Little Star.' Beginning on C, the melody progresses through G and A before a minim count on G, and then through F-E-D to return to C. There are a number of musicological statements to make about this tune, e.g.: intervals between adjacent notes are limited to seconds along the C major scale and one instance of a fifth (C-G); the only rhythmic subdivisions employed are crotchet and minim, the phrase being composed of two identical rhythmic themes; the underlying harmony of the phrase is I-V-I, serving as a function of the opening tonic note (C), the dominant minim at the end of bar two and the tonic minim at the end of bar four; the phrase is perfectly diatonic and is closed perfectly by the V-I harmony.

Correlated with this plausible musicological account is an equally plausible account in terms of *physical movement*. We hear a *jump* in the melody between the second C and the G, while the other notes seem to *move* in *step;* the melody *rests* on G in the second bar but the *instability* of this note enacts a *pull* away from it before the *descent* in *stepwise* fashion *towards* the *starting point* of C where we once again *rest*. There is a sense of *movement* over a *contoured* domain- *rising up* to an A with *leap* and *step*– and becoming *situated* in the harmonically *close* note of the dominant. A *path* is seemingly *traversed*, *from* C *to* G and *back to* C, and movement *away* from C is *balanced* by its *return* in virtue of the *inertial* rhythmic theme. Throughout the melody there is a kind of *momentum,* a premonitory assumption of progress predicated on the immediately perceived, whereby any sudden halt during the phrase would destroy it as music. This momentum is exhausted only once the music has *passed through* the second rhythmic period and the melody has *found its way back to* the *home* pitch of the tonic.

The strict musicological account is at best dry and esoteric, at worst an ineffective analysis. Conversely, the latter account is far more descriptive of the experience of 'Twinkle Twinkle,' purely in virtue of its reference to motion. Effective musicological analyses will, invariably, reference motion in order to render an experience while drawing on tight analytical terminology to properly delineate the subject matter. But the distinction between these two accounts illuminates the distinction between projecting a bespoke lexicon onto music and making a *metaphorical* characterization. There is a great divide between a phenomenon that permits of a lexicon and one that operates as a metaphor, and the richness of this metaphor– *journey through physical space*– suggests a great leap indeed. Not only are motional references intricate in music-studies, they are also necessary. G5 is no *higher* than C5, but rather has a shorter wavelength. Even when we describe a passage as fast or slow we use a metaphor of movement: there is no distinction in *pace* between fast and slow music; the distinction pertains to periods of change e.g. the number of beats that fit into a unit of time.[23]

2.3 Discussion and characterisation of the *abstract* view.

One of the points of significance of the metaphor of movement is that it implies a gap between physical accounts of sound and music-experience. Describing 'Twinkle Twinkle' as *journey through physical space* defies the physical account of the acoustical. Within one of the simplest examples of unified and balanced music, a litany of perceptual features can be postulated that depart not just from the physics of sound but also from musicology (and all of which have been given a generous showing in music-studies literature.) The apparent disparity between descriptions of musical motion and rigorous empirical explanation, coupled with the plausibility and indeed indispensability such descriptions have garnered, emboldens those who believe that musical matters are incompatible with science.

[23] See Larson 2012: chapt. 3.

It seems intuitive to separate musical sound from sound *per se*, and there are of course persuasive reasons to do this. In *The Aesthetics of Music,* Roger Scruton defines *tone* as distinct from *sound*; *tone* in this sense extends well beyond a conventional conception of a tone as a singly distinguishable pitch, essentially standing for the elements of conventional musicology– rhythm, melody and harmony– along with metaphor. It could be argued that when sound is arranged in such a way as to permit of description in terms of *tone*, the acoustical description becomes redundant.

> When we hear music, we do not hear sound only; we hear something *in* the sound, something which moves with a force of its own. This intentional object of musical perception is what I refer to by the word 'tone.' (1997: 19-20)

For Scruton, the metaphorical basis of music is not limited to movement and can be gleaned from most conventions of Western Art Music (even if movement is at the centre of his argument.) The role of metaphor in Scruton's view can be grasped by considering the term 'intentional.' The philosophical concept of intentionality has been conflated with 'representational', but can more roughly be defined as a mind's ability to be about or to stand for things, properties or states of affairs. An 'intentional object' is then an abstract object that a mental state is about when it has that intentional object.[24] The notion of intentionality can redefine *tone* in relation to sound, since once sound is introduced to the human sphere of experience, knowledge and imagination, its acoustical properties pale in significance. Indeed, it is only when a person listens to sound that music happens, and the term 'intentionality' may seem to capture this transformation between sound and *tone*.

'Intentionality' has a very wide circumscription, being inclusive of most any experience that is about or represents something. While the term is useful in highlighting the import of the human element, it can also seem something of a

[24] Chalmers (2004) seems to use 'representational' and 'intentional' interchangeably.

blunt tool. Ultimately Scruton wishes to inflate the realm of musical possibility to cover all that life identifies as meaningful, with the consequence that life may be presented in musical form.

> When we attend to an appearance for its own sake, the world that we have bracketed comes back in another form, as a conceptual order in the thing perceived. The world is on holiday, and our concepts with it, looking for the place of rest in the imagined picture. We should never enjoy this experience, if it did not in some way communicate to us the life that is ours—either through representation, or through some system of metaphor which implants our life in the thing that we perceive. (Scruton 1997, 229)

This, then, is the view that *tone* communicates life, and by virtue of its perspicacious reflection of a full life it has value.

Scruton's position is that tone exists only in an imagined space, formulating concepts of 'virtual causality' and 'phenomenological force'; however, a view that casts music perception as consisting in intentional states or objects will by implication characterise movement as something a listener comes to know about the object– a 'conceptual order'. The pertinent conception of metaphor, for Scruton, is one where the source domain might be a concept– such as the concept of movement or agency– and the artwork brooking projection of such a concept is characterized just as a novel exploration of such a concept. Scruton's view can thus be treated as *abstract* in how it describes music experience as an experience of *representing-as*: musical movement is a feature a listener understands the object as having, and this understanding is wrought through ascription of intentional objects or concepts.[25] As such, musical movement is independent of any particular instance of perception on this view. Such an experience is to be distinguished from that described by a phenomenal view, where musical movement is an effect that is engendered through perception and

[25] 'Intentional objects' can be subsumed under the sense of 'concept' wrought in the section on concepts/nonconceptual insofar as an intentional state is a representational state and intentional objects are abstract objects.

for which any conscious ascription of movement to the object is contingent.

Scruton thus gives us a further characterisation of the abstract view, in perhaps a more nuanced form than that attributed to Hanslick in the thesis introduction:

1. Musical movement is an intentional object of perception.
2. Musical movement is understood in terms of concepts or a conceptual order.
3. When sound becomes music, sound is represented as musical movement.
4. Musical movement is an abstract object- i.e. is independent of a particular instance of perception.[26]

While 1 and 2 are paraphrases of Scruton, 3 and 4 are implications I am attributing.

An initial objection to this position is that an experience of movement need not be understood as an experience of a concept; indeed, proprioceptive movement is a paradigm embodied experience. Below I will make a case for the phenomenal view by gathering evidence from psychology which suggests that music can provoke a sense of movement without a listener coming to know or understand this movement. Suffice it for now to note that human interaction is not solely characterised by *intentionality*; listening to sound is the wedding of sound and psychology. As such, the distinction between tone and sound can be understood as a distinction between a physical account of sound– conceived as patterns of air convection– and a psychological account of sound– conceived as a repertoire of psychological responses wrought by a perceiver on encountering physical sound. A psychological account of sound, I argue, will include experiences that are not limited to intentionality. Responsible for the great conceptual chasm between 'sound' and 'tone' is the great complexity of the human perceiver. There will always appear to be a poverty of theory when only the physical nature of a

[26] While Scruton may appear to speak more generally, in terms of music perception or music experience rather than musical movement, musical movement is central to his account of music experience and it is clear that his claims about music experience imply identical claims about musical movement.

manifestly psychological phenomenon is addressed; this is nothing special about music.

Scruton's argument can be adopted if adapted so as to suggest that the artwork does not in fact proffer a picture of the world in unworldly form, but provides the conditions under which our own perceptual apparatus can be explored. It is less a picture out onto the world than a cognitive mirror, giving an exhibition of our own expectancies, projections, mental order and auditory specifications. It may be that the world is reflected in aesthetic experience through the ordering of the aesthetic object but this is not the world of things, beliefs and desires but the outline structure of such things, emptied of their concepts. Indeed, the structure of an aesthetic object is wrought for the act of perception rather than for the navigation of the environment. The aesthetic object is a physical object so designed and manipulated as to present a kind of perceptual bonanza– an object with features that complement the inner workings of the mind and so allow the listener to engage in an intense experience.

2.4 Further characterising the *abstract* view by considering the distinction between *musical, acoustical* and *psycho-acoustical* accounts of musical movement.

Many have dismissed empirical enquiry into musical sound as either wrong-headed or heresy. To make the claim that the aesthetic is far removed from empirical methodologies, philosophers have often constructed an opposition between the *musical* and the *physical*.[27] Scruton hints at this division here:

> When we hear consonance, we hear the tones as resting together, belonging, as though something in each were satisfied by the others. Consonance is something that we hear in the sounds: and it is therefore maximally sensitive to context, like every musical, as opposed to merely

[27] See chapter 5 for more examples in the literature that separate the musical from the empirical.

acoustical, phenomenon (Scruton 1997: 62)

There are, as Scruton makes plain, major divergences between musical and acoustical phenomena. Along with (I) the context-dependence of musical features, Scruton instructs of various other characteristics *tone* has which sound does not: (II) 'quasi spatial organisation' (partitioning of sounds into tones with phenomenal verticality); (III) a sense of *movement* or *force*; (IV) arrangement over perceptual dimensions of *foreground* and *background*; (V) *virtual causality*; (VI) maintenance of clear *boundaries* between features like phrases; (VII) and musical *individuals*, like repeated themes or harmonies. These disparities between the musical and acoustical lead Scruton to make the claim that within music there resides an order which 'contains no information about the physical world, which stands apart from the ordinary workings of cause and effect, and which is irreducible to any physical organization' (1997: 39.) This provides another initial characterisation of the abstract view– (a) that musical movement is *irreducible* and therefore (b) musical movement is *specifically musical.*[28]

These are unquestionably persuasive reasons to separate the acoustical from the musical, although they are not clearly persuasive in making the far stronger claim Scruton advances: couching music in opposition to the *acoustic* properties of sound– understood as the physical properties of sound– does not justify its opposition to 'the ordinary workings of cause and effect' or 'any physical organisation'. This is for the fact that accounts of musical sound are not restricted to either acoustic or musicological theory, but can invoke theory on the *psycho-acoustic*. It is only if music has features that are non-explicable under both physical and psychological paradigms that the view that music is non-physical is feasible. This section will give some indications of music's psycho-acoustic nature, positing that features of *tone* can be equated with non-musical features of our bodies and minds, before the next section gives a detailed argument drawing on extensive research in music-psychology.

[28] This characterisation links to that given by reference to Hanslick in the introduction and is discussed in some detail in chapter 5 when considering transcendent views.

Various instances of the experience of musical movement can be traced to an embodied basis. For example, the terminology pertaining to *ascent* of a scale can be tied to a change in proprioceptive phenomenology consistent with an upwards movement: lower frequencies are felt in lower parts of the body while higher frequencies are only registered by the ears; when an ascending scale is sung the attendant phenomenology will register the origin of each note as rising up through the singer's body– from the chest up to the larynx. These may be tenuous grounds for music's sense of movement (as is Scruton view, 1997: 96) but they need be no more robust. All that is necessary for the metaphorical mapping of one domain onto another, in the sense I intend it here, is some relation between embodied experience and auditory experience.

It can be made apparent, I suggest, that various musical constraints are related to physical constraints of a moving body. A tone can be distinguished in isolation while being accompanied by other sounds, and a tone can change some of its characteristics while retaining others: a melody line will typically contain notes of different pitches and durations but maintain a frequency range that differentiates it from other parts and a common timbre resultant of the particular instrument that plays it. These characteristics are analogous with the movement of an object in space. Imagine a body, perhaps a person or animal, moving through an environment. This body is distinguished by its own physical and appearance characteristics, by colour and shape; its aspects give it definition and allow a perceiver to identify it as a unitary body, distinguished from the landscape in which it is situated and yet impeccably coherent in its environmental interaction. But as the body moves, it goes through changes both with respect to its own characteristics and with respect to its surroundings. A physical object can only move in a way that adheres to the rules of the physical world and in accordance with its own constraints as they reconcile with those of the environment. These constraints bind the body to a particular range of its environment and imbue a rightness and order to movement, whether the moving object is human, animal or inorganic matter.

Constraint permeates the spatial world in much the way it does music. Things

progress through points in space, much as music progresses through pitches and harmonic centres; it would be a perceptual confusion to watch a body change positions in an environment without traversing some path between points, just as it would were a piece to change key every few beats without evincing progression between target keys. That free organic movement invariably involves a form of ambulation or oscillation ensures that the periodicity we find in rhythm is apparent in just about every creature that moves in space. This kind of movement cannot happen without the periodicity of footsteps or flapping wings, just as melody cannot happen without the periodicity of rhythm. Musical themes *or* physical bodies are only established where boundaries and categories are established, and both music and animal change only within the particular parameters set by their own characteristics and those of the surrounding musical/physical environment.

When we watch something moving through an environment we might reflect on the deep levels of structure and order at play in the physical world, but more likely we will take them for granted. Music can be a metaphor for movement not because music shares substantive properties with movement, but because it affords an analogue structure. The link between points in space and music *is* tenuous, and it seems the basic elements of music could be a metaphor for many other things. But it is for the fact of movement being so fundamental an experience that music can potentially induce an experience of the unreal by being grounded in basic facilities of spatial perception. It could be argued, along with Scruton, that this kinship of music and movement renders music a metaphor of the world in which we live. But it is not the material world that music presents, it is the underlying order through which the world is perceived. Music is composed of elements that serve as surrogate material objects– and have structural consistencies with real perceptual objects– but by being conceptually empty these elements can stretch perceptual capacities far beyond their real-world remit, and it is on this widening of perceptual boundaries that music's aesthetic value depends.

The distinction between literal representation and metaphor, then, is here

presented as a distinction between conceptual representation and nonconceptual perception. When the relation between music and world is borne out, it is the nonconceptual perceptual processes that come to the fore as substantive links, while the higher cognitive objects conflict: periodicity, entrainment, categorization, embodiment, *Gestalt* perception, discrimination, grouping and ecological perception are all true common aspects of music and non-music; whereas trains, war, politics and personal-level experience of life are merely contingent, *ad hoc* relations.

2.5 Drawing on existing work in music-psychology to give a psycho-acoustic account of musical movement.

It has been suggested that nonconceptual perceptual elements of music can operate in *metaphorical* relationships. In chapter one, 'metaphor' was considered under Budd's view in terms of 'characterisation', which parallels what is perhaps the typically assumed sense of 'conceiving an object as something it is not.' Under this view, metaphor may be thought of as entailing a concept (or three concepts – two incompatible ones plus the concept of incompatibility). However, metaphor also has a sense within cognitive science. The main points of distinction of the cognitive science sense of metaphor are 1– metaphor is a projection from *embodied* experience and 2– the source domain of metaphor is *nonconceptual* (or preconceptual).[29]

Were I to utter the phrase 'I feel *down* today for hearing the bad news', I would expect the utterance to pass without misunderstanding; I would also not expect any abnormal attention be paid to my wording. But within this sentence is the metaphor of emotional state as verticality: 'I feel *down*' is used to refer not to a spatial position but to a state of mind. This is an example of a 'metaphor we live

[29] It should be said that to accept this sense of metaphor the reader will need to accept the possibility of embodied nonconceptual experience, a discussion of which, including the arguments given by certain pertinent cognitive scientists and music-psychologists, is given below.

by', wrought by Lakoff and Johnson (1980,) and is one example of many. For the metaphor HAPPY IS UP – SAD IS DOWN, Lakoff and Johnson give the following examples:

> I'm feeling up. That boosted my spirits. My spirits rose. You're in high spirits. Thinking about her always gives me a lift. I'm feeling down. I'm depressed. He's really low these days. I fell into a depression. My spirits sank. (p.16)

There are similar lists given for consciousness– e.g. woke *up*– and health– e.g. *fell* ill. Indeed, Lakoff and Johnson produce a litany of examples that pervade language and as such support their claim that metaphor can be understood not merely as a literary device– nor even just as a lingual device– but as fundamental to our ordinary cognitive system, in terms of which we both think and act (p.4.) Metaphorical projection, in other words, is something that typically accompanies everyday cognition, indeed, is necessary for it.[30]

The growing body of literature surrounding metaphor in this sense, both within cognitive science and music psychology, has made extensive use of the preconceptual structures, *image schemata*.[31] Coined by Mark Johnson in his *The Body in the Mind* (1987), 'schema' is formulated with parallels to the Kantian term, as an imaginative structure that serves to bridge concept and percept via patterns of embodied experience. By projecting bodily experience onto other domains, image schemata help reduce the field of cognitive possibilities. The PATH schema, for instance, can operate under an indefinite range of concepts: from getting a degree to building a house to starting a business. We conceptualise such disparate experiences by utilising a common structure, consistent with traversing a path between two points. In this way, Johnson argues, metaphor can be understood as a part in our day-to-day cognitive practice, 'carving up' our world into manageable chunks by mapping structure

[30] For a review of the empirical evidence supporting metaphor as a basic cognitive process, see Raymond W. Gibbs (1994).
[31] In music-psychology see, for example: Brewer: 2000; Cox: 1999; Echard: 1999; Marconi: 2001; Saslaw: 1996; Spitzer: 2004; Zbikowski: 1997; Moore: 2010; Larson and Van Handel: 2005.

from the bodily domain onto the conceptual.

Under this conception of metaphor, the metaphor of musical movement is more transparent. Nothing moves in music, just as I am no higher in space when I say 'I'm feeling up'; structures are mapped across domains throughout our cognitive life. In which case, it is not an implication of the metaphor of musical movement that it must consist in the realm of concepts and as such is irreducible, since listeners may project their embodied experience of movement onto sound. As Alicia Acitores suggests, image schemata are felicitous in giving accounts of aspects of music in terms of embodied experience:

> In music, for instance, the cycle schema helps us understand recapitulation in a sonata, or the cycle of fifths (Brower 2000: 343); and Saslaw (1996: 222-3) shows how path and container metaphors are projected in the understanding of a cadence… and how major and minor chords can be understood in terms of balance. (2011: 216-7)

Certain of Scruton's attributes of music, given to be distinctly musical, can be understood by reference to such image schemata– the path and container metaphor providing an account for *boundaries* in phrases or sections, and the cycle schema suggesting how a part can be individuated through repetition.

Steve Larson has worked extensively on embodied metaphor in music, providing the following list of motional bases for musical features:

Source (Physical Motion)	➔	Target (Music)
Physical Object	➔	Musical Event
Physical Motion	➔	Musical Motion
Speed of Motion	➔	Tempo
Location of Observer	➔	Present Musical Event
Objects in Front of Observer	➔	Future Musical Events
Objects Behind Observer	➔	Past Musical Events

Path of Motion	➔	Musical Passage
Starting/Ending Point of Motion	➔	Beginning/End of Passage
Temporary Cessation of Motion	➔	Rest, Caesura
Motion over Same Path Again	➔	Recapitulation, Repeat
Physical Forces	➔	'Musical Forces'

Fig. 2.1 (Larson: 2012, 112)

The relation between musical sound and points in space has been borne out in some detail above, with transparently motional metaphors like PITCH IS UP AND DOWN being the simplest to link to an embodied basis. However, while most of the mappings laid out by Larson explicate in terms of delimited concepts of space and time, one is a mapping of *causality*. 'Musical forces' are more obscure than 'verticality', being concerned not merely with relations in space but with goal orientation between points in space. There is an important difference between labelling C *higher* than B, and suggesting that B directs a *force towards* C.

2.6 Musical Forces: an example.

One of the most successful applications of image schemata in music-study has been in understanding *force* or *compulsion.* There is nothing so conducive to the generation of expectancies, tension and climax than the apparent forcefulness of musical sound, and as such this force makes a particular contribution to the view that musical movement is irreducible. It is music's impulse towards and away from itself, the phenomenal weight that pulls it back down from higher reaches, or its potential to direct towards a goal that motivates claims of a closed musical domain. Musical forces seem to strengthen the position that music cannot be lent empirical explanation since they are suggestive not merely of spatial relations but of *causal* relations.

The finale of King Crimson's *Fracture* provides a vivid example. After descending into an arrhythmic passage of unusual instrumental effects, where tonal centre is lost (6:36), the track emerges as a series of splintered themes, harmonized

within the whole tone scale and making somewhat oblique reference to past material. Within this re-emergence a metrical tension is established between lead guitar part and rhythm section (7:56) where the highly syncopated main melody in Robert Fripp's guitar part is parsed as two bars of 5/4 followed by 2 bars of 4/4, all the while Bill Bruford plays a fairly simple 2/4 beat on the drum kit. As the highest frequency band begins to be filled by atonal noise elements the bass guitar moves to the front of the mix with a heavily distorted tone (8:22), further pushing at the limits of rhythmic coherence. The bass phrases a bar of 10/4 to begin on the final beat of the guitar's four bar cycle, accented by the drums to give the impression of a 3/4 final bar, followed by 10/4, 5/4 and 4/4 to bring the bass phrase back in line with the guitar. The tensile stress of this passage, based within the highly chromatic movements of the whole tone scale and the prevalence of conflicting asymmetrical metres, ultimately collapses into a fairly conventional bass solo using the pentatonic scale in 4/4.

It would be implausible to attempt a meaningful description of this passage without recourse to the notion of force. Each part seems to act on those around it by imposing distinct accents and boundaries, at once pushing away from parallel subjects and holding onto them as part of a unified structure. The extreme tension of this passage plays on the listeners' perception of the finale, which enters after the bass solo and a bridging passage of whole-tone themes in a unison 4-bar metre of 4/4 – 4/4 – 5/4 – 6/4. This bridge consolidates all instrumentation onto common metrical and thematic ground, but is smothered by the use of simple whole-tone intervals and rhythms. Now the finale, composed of two distinct time signatures coalescing under a global metre of 15/4, can bring a sense of freedom and exhilaration. The entrance of the bass (9:15) using only the whole tone scale and phrasing over cycles of 7/4–8/4, with drum kit accompaniment, would be an angular and tense introduction to any track, but in its place in *Fracture* it generates momentum. When the guitar joins in 3-bar cycles of 5/4 the sound of a perfect fifth interval within the melody disinhibits the movement of the passage, producing enormous intensity and an urging forward. This is further heightened by periodic modulation up major thirds, ultimately resulting in a path of the tonic from C# to A in what could be

described as Lydian dominant. But coupled with the release of the finale is the instability of a whole-tone bass line and cross-metrical asymmetry. It stretches our ability to rhythmically entrain and find key-centre but also brings the music to climax with a coherence that seems transparent. The force of this conflict finds ultimate resolve in the final crescendo of the track (10:00), where metrical ambiguity gives way to short pounding subdivisions in the rhythm section and a complete unveiling of the centrepiece melody in the guitar.

Through different stages of metrical and rhythmical complexity and tonal chromaticism, *Fracture* lavishes musicological curiosities on the analyst, and surely much pleasure can be derived from dissecting the various feats of design there embedded. However, precise statements about *Fracture* are generally restricted to analytical sums pertaining to metre and the musicological lexicon, where the experience of intent listening can give far more than this. In describing an experience of *Fracture* it is my wont to use metaphor, to conjure an image of violent altercation between subjects trapped in close company giving way to flight of some great machine; or perhaps I feel the metrical complexity and defiant tonality as forces pulling my body away from its axes while compelling it in a forward or upward direction. Whatever metaphor is used, it is arguable that without employing some causally grounded terminology the description will fall flat. Within this passage of music lies all manner of phenomenological forces that swell and are dispelled in an experientially lucid way.

If the nature of musical forces could not be granted empirical access, it would mean the failure of music-psychology and veneration for those claiming a uniquely aesthetic experience. This is, however, a burgeoning field of empirical enquiry, and there have been numerous attempts to reconcile the causally affective interaction of musical elements with non-musical perception and embodied cognition. Steve Larson delineates three types of musical force: *gravity, magnetism* and *inertia.*[32] Through extensive musical analysis he demonstrates the musical correlate to such forces. Indeed, we can witness all three forces in the nursery rhyme *Twinkle Twinkle* considered above: when the

[32] See Larson (2012).

melody rises up to rest on G, it is willed to descend back towards its starting point (gravity); the D before the final C seems as if it is pulling towards the tonic (magnetism); and the rhythmic theme imbues the passage with a comforting stability in virtue of the perfect repetition (inertia.)

Much of the phenomenology of *Fracture* can be linked to these metaphorical forces. Through the cycle of upward modulation in the first section of the finale, the listener can experience heightened *intensity*; musical gravity offers an account of this experience by suggesting that the climb from the keys of C# Lydian dominant up to A suggests a great expenditure of energy– a *workload.* It is as if a force is needed to push the music up through different key centres. Correlatively, when we are at our most exhilarated we stand at full height, we jump up from the floor, punching the air above our heads. When we feel psychologically powerful we defy gravity, even if it is a fundamental aspect of our everyday experience from which we cannot escape.

Perhaps the most distinctive aspect of *Fracture* is its metrical complexity and the sense of opposition and conflict this brings. The clash between phrases in the finale's first section creates a pull towards rhythmic coherence; as the bass phrase extends its bar-line over that of the guitar, its strong accents and periodicity undermine those of the simple 5/4 guitar theme. Fortification from the drums and a common pulse ensures that the bass theme is not lost, but rather *acts on* the metrical and rhythmical balance of the melody to create a strained separation, ever heightening the drive towards coalescence of metrical order that only arrives after a full 15 beats. This pull towards reconciliation of metre can be understood in terms of metaphorical projection of goal-directed behaviour. There is nothing that is truly strained through a clash of metre, nor is there truly a resolve of tension after 15 beats. However, listeners can derive significance for this musical technique from their own experience of being drawn towards and away from goals as is at the crux of the concept of musical *magnetism*.

Central to the effect of phrasing and theme is the metaphor of *inertia*, where

sequences are expected to continue. The momentum and climax of *Fracture* depends on the listener's will for patterns to repeat so as to brook resolution between parts. Continuity and periodicity in our embodied lives provides a basis on which to create an experience from sequential patterns of sound, and the feasibility of an art of sound– perhaps art in general– is contingent on a work's ability to tease out a response from the depths of our perceptual machinery.

2.7 The embodied basis of Musical Forces.

It seems uncontentious to posit gravity, magnetism and inertia as musical metaphors, their correlates in music theory being abundant. Larson, however, offers these concepts not simply as analytical tools but as aspects of the psychological theory of embodied cognition originating with Lakoff and Johnson. Notions like musical gravity are wrought not only to elucidate the internal workings of music, such effects having been identified for decades, but to give some commentary on the psychological underpinnings thereof. Larson produces a number of data that evince metaphorical forces in music (2012 chpt. 3), but also claims that such forces operate as embodied schematic structures along Johnson's paradigm.

The forces that permeate our bodies provide a deep reservoir of structure to our cognitive systems. 'We easily forget that our bodies are clusters of forces and that *every* event of which we are a part consists, minimally, of forces in interaction' (Johnson 1987: 42.) Johnson's insight was, of course, to show the import of these forces in our higher conceptual enterprise– that they 'manifest structures that are very much a part of our having coherent, meaningful experiences that we can call into consciousness, understand, reason about, and communicate in language' (Johnson 1987: 42-3.) It can be said that forces pervade both experience of music and experience of our bodies; the points of contact between musical and bodily inertia, say, are so numerous as to suggest that a common level of structure is manifest. It might seem that the looseness of the notion of 'inertia' suggests a correspondingly loose commonality between

musical and bodily 'inertia', given that the term appears to stand minimally for something like 'tendency to repeat or continue.' However, there is in fact a range of constraints on the collective structure of *force* schemata: *interaction* between objects; a *vector* quality (or directionality); a *path of motion*; evidence of *origins* or *sources*; *degrees of power or intensity*; and finally, a *structure or sequence of causality* (Johnson 1987: 43-4.)

Deconstructing image schemata in this way seems to violate their nature as *gestalt,* pre-conceptual structures, but the reduction is of course necessary to consider how they operate. The embodied root of musical forces are perhaps not explored quite as deeply as could have been in Larson's study, most likely due to the other formidable ambitions of the book coupled with the extensive secondary literature on Johnson. Here I will consider more closely the basis of these three musical forces– gravity, magnetism and inertia– of which two- gravity and magnetism– employ the BALANCE schema.[33]

When there is a symmetrical or proportional arrangement of forces around a point or axis we can say that the forces are in *balance* (Johnson 1987: 85.) All bodily movement involves balance, the most obvious example being walking or locomotion. But even when I reach out my hand to grasp a glass I must find a balance between opposing forces of gravity and muscle tension: I must adjust the force of my grip and the lifting force of my arm to account for the extra weight of the glass, and I may need to shift the weight of my body backwards to maintain the same centre of gravity. While the balance schema is based in such bodily experience, its extension in language suggests that communication would be heavily restricted without its use: I *weigh up* decisions, address the *balance* of contrasting arguments, talk of a need for emotional *release* in order to return my psychological *stability*, am subject to the *scales* of justice, attempt to reach *equilibrium* between sides of a mathematical equation or complain of the power-*imbalance* within the political system of a society.

Balance is immediately relevant to music– musicologists have used the term for

[33] See Saslaw (1996) for an in-depth discussion of the BALANCE schema.

centuries– but image schemata theory supports the view that the pertinent application of this term is not to a musical object but to a musical *experience*, that the mechanism for the experience can be grounded in the body and that the same mechanism has great utility in non-musical life. It is noteworthy that so far I have been invoking what Johnson refers to as a 'prototypical BALANCE schema', although he lists three others– TWIN PAN, POINT and EQUILIBRIUM– each referring to various different systems by which forces can come into balance. The musical forces of gravity and magnetism, then, may employ one of these types of BALANCE schema *along with* other metaphorical structures. Here are the formulations of gravity, magnetism and inertia:

Magnetism: CONTAINER, SOURCE-PATH-GOAL, CENTRE-PERIPHERY, EQUILIBRIUM.

Inertia: COMPULSION, CYCLE, CONTAINER.

Gravity: COMPULSION, VERTICALITY, CENTRE-PERIPHERY, BALANCE

We can experience *inertia* not only in the tendency for rhythms to repeat or melodies to continue in the same direction, but in the movement of walking and breathing. Breathing is a repeated bodily function that we feel as a two-stage cycle comparable to periodic peaks and troughs; it is a cycle I *compel* to continue but also one that is *contained* within the confines of my body. The INTERTIA schema helps facilitate rhythm by projecting these embodied experiences onto repeated patterns of sound and the constraint of metre and tempo.

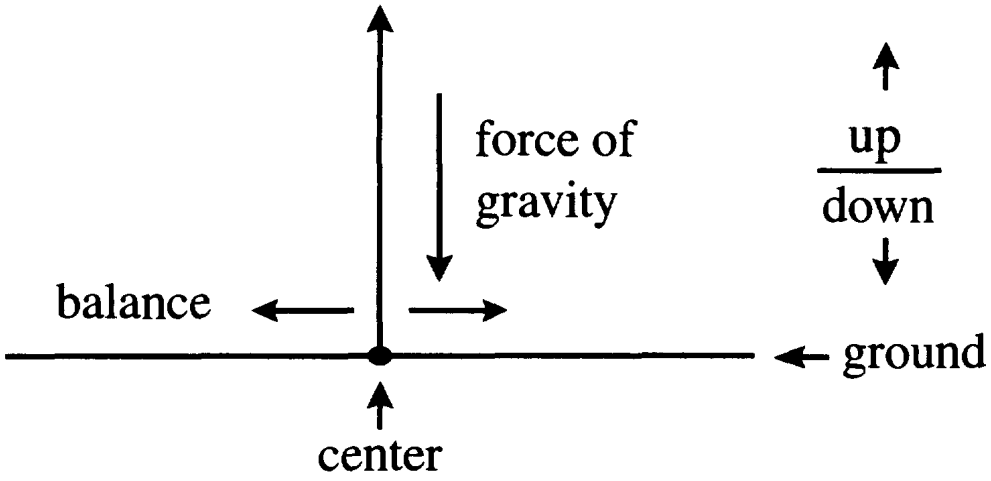

Fig. 2.2 (Brower 2000: 330)

Gravity is a somewhat more complex metaphor, a representation of the image schemata involved given in figure 1 courtesy of Candace Brower. Coordination of these schemata accounts for the sense of grounded stability felt when standing upright along the horizontal axis, the tension of pushing our bodies up against the force of gravity, and the relaxation of allowing ourselves to fall back towards the ground. All musical tones are subject to gravity, with the tonic having a variable pull factor depending on its vertical-relation with another tone (Arnheim, 1986.) Brower follows Rudolf Arnheim's work on musical forces by suggesting 'that these two pulling forces act to reinforce or oppose one another, the downward force of gravity lessening the upward pull to 8 [scale degree] in the motion from 7 to 8, while strengthening the downward pull to 1 in the motion from 2 to 1' (Brower 2000: 334.) This phenomenon also helps explain why melodies tend to have an arched contour where ascent is followed by descent, but no tendency for the inverse (Huron 2006.) The embodied basis of musical gravity also provides some elucidation of the heightening of tension created by the rising modulations in *Fracture*, and conversely, the soothing effects of many lullabies who's melodic contours have downward trajectories (ibid.)

The notion of *melodic magnetism* is perhaps the most complex, given its fundamental role in melodic and harmonic tension coupled with the relative

obscurity of 'embodied magnetism.' It could be argued that *magnetism* is not sourced from embodied experience since it is already used metaphorically when applied to bodily action. Indeed, within the literature definition of the term couched in embodied experience is lacking relative to the other forces, even though the musical correlate is well studied.[34] Larson and Brower ground this force in our bodily experience with *magnets*, and indeed the relevant musical effects do have commonalities with the behaviour of magnets. For example, *proximity* is a key factor in both true magnetism and the musical variety; as of course is *attraction*. However, gravity and inertia seem far deeper elements of the human experience than does magnetism, the danger being that the latter drifts towards a conceptual ascription rather than projection from the body. It would be a major limitation of the embodied-empirical project if such a fundamental virtual force operated in isolation from embodied experience.

While the embodied basis of *magnetism* is less transparent than that of the other musical forces, it seems that its reduction into *source-path-goal* and *container* schemata dissolves much of the obscurity. Janna Saslaw (1996) has written on how these two structures combine to prepare modulation, underlie harmonic progression and create a pull towards stable pitches, while Brower has suggested an OVERTONE-VERTICALITY schema (fig. 2) to account for the relation between pitch intervals and harmonic stability in terms of the overtone series. A melody or harmony can be understood as having a *source* (first note, typically tonic), a *path* (intermediate progression) and a *goal* (closure on the tonic or closure by modulation to a new tonic). The CONTAINER schema also operates in this experience: while the melody is in progress we can talk of it as *open*, and a cadential device will bring about *closure.* The tension of a dominant-seventh in a I-V^7-I cadence pulls towards the final I through the OVERTONE-VERTICALITY schema combined with the GOAL schema *and* CONTAINER. A I-V^7-I cadence closes a container and thus creates a boundary in the music, a boundary

[34] E.g. Larson 2012; Ortmann 1926; Merriam 1956; Brower 2000; Arnheim 1986; Bharucha 1996; Lerdahl 1996, 2001. For a detailed analysis, see Larson's computer models (e.g. Larson 2004), which use an algorithm to 'represent magnetism as the difference between the inverse squares of the semitone distances between opposing attractors' (Larson 2012: 147.)

pre-empted by the periodicity of phrasing throughout (operation of INERTIA schema.) In other words, an account of musical magnetism can be reduced to kinaesthetic schemata by a fairly direct terminological substitution of image schematic for musicological.

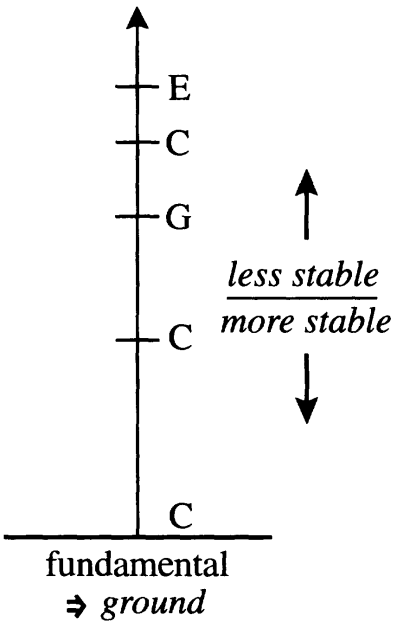

Fig. 2.3 (Brower 2000: 335)

There are broader points to be made. Through life we do feel attraction towards people and things and life is meaningless without goals, so there is in this sense a wealth of bodily experience to draw on to compel one pitch towards another. Research in visual perception has also provided an analogue for musical magnetism that has suggested virtual magnetism between points can be understood in terms of balance.[35] Rudolf Arnheim makes the point that our visual space is organised to relieve tensions between shapes: designers and architects pore over the proper distance between buildings, windows, pieces of furniture etc. (Arnheim 1974: 13.) Figure 3 attempts to capture this phenomenon of visual tension. The disk and square are perceived as a unified *gestalt*, but, Arnheim argues, the disk is not merely perceived as off-centre- as a static aspect of the scene. Rather, the visual experience of figure 3 is *dynamic*. Arnheim writes of the disk:

[35] See Arnheim (1974: chapt. 1) and Johnson (1987: chapt. 4.)

> There is something restless about it. It looks as though it had been at the center and wished to return, or as though it wants to move away even farther. And the disk's relations to the edges of the square are a similar play of attraction and repulsion.

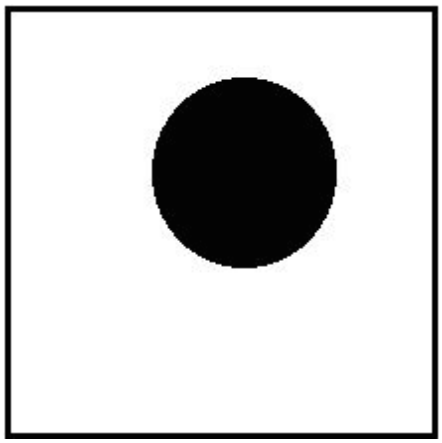

Fig. 2.4 (Arnheim 1974: 10)

The tension created by such positional relationships can be represented with some precision by considering the lines of symmetry about the square: as well as the centre, diagonal, vertical and horizontal axes are assumed to be points of stability along with points along the square's sides. There has been some empirical research into this effect,[36] and it does seem apt to apply canonical musicological terms to scenes like figure 3: e.g. *tension, instability, compulsion.*

2.8 Summary of Movement and Forces.

The breadth of these researches should weigh heavily on any conception of musical movement, supporting the claim that the world of musical space and

[36] Hubbard and Ruppel (2000) cite a number of relevant studies; Bryant and Subbiah (1994) call this the 'landmark attraction effect.' See Larson (2008: 326).

motion is an embodied world of nonconceptual psychological structures. A phenomenal view is grounded on the claim that music experience is nonconceptual, and the above should go towards making this claim by outlining an account of musical movement and force as projection of embodied structures. It may seem a subtle difference to conceive a process of projecting out from the body rather than one of ascribing concepts, given that both are conceptions of living through music. But to regard the body as the source of projection, rather than abstract objects, is to better reconcile our thinking about music with experience thereof. Lines can and should be drawn between the intentional and the embodied, allowing musical movement to be related to sound and psychology; more empirically based research, with a basis in the non-musical, is a useful tool in understanding music and is made available when the picture is one of psychological rather than intellectual engagement.

I have considered many forms of musical motion– both spatial and causal– pertaining to pitch, melody, rhythm, harmony, metre and phrasing. Scruton's argument that musical movement is irreducible and specifically musical is greatly weakened by the researches discussed. To recap, the characteristics of *tone* are: (I) the context-dependence of musical features; (II) 'quasi spatial organisation' (partitioning of sounds into tones with phenomenal verticality); (III) a sense of *movement* or *force*; (IV) arrangement over perceptual dimensions of *foreground* and *background*; (V) *virtual causality*; (VI) maintenance of clear *boundaries* between features like phrases; (VII) musical *individuals*, like repeated themes or harmonies.

I have given direct accounts for (II), (III), (V), (VI) and (VII) using the framework from embodied schemata, leaving only (I)– context dependency– and (IV)– presentation of foreground and background. (I) is accounted for with a connectionist architecture below, and it seems highly likely that (IV) could be offered a psycho-acoustic account. Even were an account of (IV) not forthcoming, appeal to presentation of foreground and background alone would mount a weak argument for Scruton's abstract view, and it should follow that image schemata present an effective challenge, providing an embodied basis for arguably the

most significant characteristics of musical movement– organisation in space, causality and force.

2.9 Giving a psycho-acoustic account of the functions of music perception that underlie musical movement: Neural Network models of music-perception.

This section argues a phenomenal view of musical movement by giving attention to the broader perceptual features of music that underlie or constitute experiences of musical movement. It is necessary to show that basic features of music can be understood in a way compatible with the phenomenal view if it is to be defended. When it is noted that the scale-degree B will appear compelled up one semi-tone to C when heard in the key of C, a musical force is described; but while the above has argued for a phenomenal account of a musical force such as compulsion, it has not argued for a phenomenal account of basic musicological elements like 'scale-degree' or 'key.'

Below I consider various perceptual features of music, arguing that they can be explained with psychological models that do not use or imply representational states (concepts). The models referenced are *connectionist,* involving networks of nodes that activate according to certain rules or learning patterns so as to model cognitive responses. Before providing more depth as to the mechanics of connectist approaches, I will summarise some relevant researches: sophisticated perceptual processes pertaining to categorization (Gjerdingen, 1990), tonal hierarchy and key centre (Tillman et al. 2000) have been modelled in a connectionist architecture, along with more fundamental features such as pitch perception (Taylor & Greenhough, 1994), octave equivalence (Bharucha & Mencl, 1996), chord classification (Laden & Keefe, 1991), and melodic sequence learning (Bharucha & Todd, 1989; Krumhansl, Louhivuori, Toiviainen, Jarvinen, & Eerola, 1999).[37] Philosophically contentious issues like emotion are also

[37] See Tillman et al. (2000).

potentially amenable to this approach: Eduardo Coutinho and Angelo Cangelosi (2009) created a connectionist model that can predict the emotional responses of listeners based on a fairly rich set of musical parameters– dynamics, pitch level, pitch variations, timbre, texture, and tempo.

The profile of connectionism within cognitive science has risen steadily since its renaissance in the 1980s, now rivalling classicalist representation-based computational paradigms for dominance and being found increasingly felicitous in music-study as a model for music-perception and cognition. These systems are made up of layers of interconnected units, each in a specific state of *activation*. When data is inputted, activation will spread across each layer in a pattern determined by the constraints implemented on each unit by the operator and by the properties of the data. One of the great benefits of this modelling technique is that the constraints on individual units, and therefore their interconnections, will change passively through exposure to data so as to adapt their output in a way that parallels perceptual learning (bottom-up configuration). Connectionism, then, is often implemented for artificial neural networks, since the spread of activity amongst units coupled with the lack of a compartmentalized data processer renders it a powerful representation of a neural network.

Unsurprisingly, the connectionist's purview is far narrower than the philosopher's, and there are many features of music an aesthetician can point to that a cognitive scientist cannot model with connectionist architecture. This limitation can either be attributed to a paradigm failure or to technological and developmental constraints. A philosopher or musicologist could object, for example, that Coutinho and Cangelosi's claim to have modelled emotional responses to music fails given that all input and output data must be interpreted by an observer to be ascribed the correct values and that there is clearly nothing close to an aesthetic experience happening within the latticework of nodes and connections. I will indeed argue in chapter 4 that transplanting the musical from the sonic domain is an effective deletion of the musical. And there is clearly no music happening in Coutinho and Cangelosi's experiment.

However, while experience is omitted from such an experiment, it remains that Coutinho and Cangelosi's experiment is a success from a purely *functional*, third-person perspective. The physical properties of sound are translated into numerically identical values which are then used to 'tune' the network to the appropriate response. The 'weighting' between units– the degree to which activity is attenuated on connection– changes automatically so as to adapt patterns of activity to an input corpus. A model such as this, then, can give reports to the observer that are in line with real listeners' reports when provided with information that closely matches that given to real listeners, if all information is encoded into a numerically identical form; and this is true of novel inputs. While an analyst is required to interpret the responses of the model, arguably this would also be true of human subject: the difference is in terms of the symbols or 'language' used by a connectionist model versus a human subject. It can be said, then, that connectionist systems will independently learn how to behave in the same way as a real listener when asked questions about an experience of an artwork. Even if there is no experience, from the perspective of the observer, listener and model are functionally indistinguishable.

Models such as this that can create functional analogues to human subjects– if only in the highly conditioned environment of the laboratory– provide a challenge to the view that aesthetic judgements are subjective, and opaque to analytical method. Conceding that connectionist models might explain musical aesthetics is, of course, a highly unattractive prospect for those who value music highly. But ignoring the explanatory role of these models should, I think, be equally unattractive. It is instructive to unpack this explanatory role and thus describe the prima facie inadequacies, and strengths, of a functional explanation of music perception. The view given here is that the perspicacity of some connectionist approaches suggests that many musicological concepts will not deflect empirical inquiry, but have the potential to be reduced to psychology.

In an attempt to unpack the explanative role of connectionist models, I will consider Barbara Tillman, Emmanuel Bigand and Jamshed J. Bharucha's study *Implicit Learning of Tonality: A Self-Organizing Approach* (2000). The

dependence of the imminently perceived on musical context shapes listener experience, and is a phenomenon at the core of musicological models pertaining to *tonal hierarchy* and *key centre*. The role of each pitch-class will depend on the context of key and underpinning harmony: the note B will provoke a very different phenomenological response in the key of E than it would in the key of F, and yet it is acoustically constant. Scruton argues that this contextual dependence of musical features– given as (I) above– reduces the force of empirical methods since it cannot be reconciled with the physical paradigm of acoustics. However, research in the psychology of music does seem to delineate the perceptual basis of contextualized relationships, using modelling techniques that derive from general perceptual learning.

Tilman et al.'s model is organized to represent pitch chroma both as a universal constraint (through the fixed input units themselves) and as culturally specific constraint (through the favoured combination of the input units.) The model learns these constraints automatically through exposure to the input in virtue of a set of general constraints within the system that are related to neuropsychological processes: 'frequency-tuned units in auditory cortex, a layered architecture, plasticity in auditory cortex, and Hebbian learning (Hebb, 1949)' (p.907.) (Hebbian learning is the principle that connections between two neurons will be strengthened in accordance with the strength of correlation between both neurons' output.) Tillman et al. claim that '[w]ith the help of these constraints, the model adapts to the specific rules of Western harmony through mere exposure to typical musical exemplars' (ibid.) There is no specific knowledge representation at the outset of the learning process, all weightings of connections being randomly set, and there is no 'teaching' of the system by the researcher– all learning relies on 'bottom-up' information and what is termed 'reverberation' (where activity spreads through the system repeatedly, thus being subjected to repeated adjustment from existing connections; 'reverberation' is often compared to automatic top-down configuration.) What can be gleaned from this organization is that no rules or concepts are stored within the system. The learning protocol of the system is set by algorithms grounded in general psychological processes, permitting a similar architecture to

be applied to other realms– such as language or object-recognition– with similar success. Such features add value to this model since they disassociate the human analyst. Raw data can be fed into a model that has not had the rules of music engineered into it to produce data in line with conventional musicology.

A crucial consideration in evaluating the explanative role of this model, however, is the data itself: what exactly such a model can do with particular information. It could be said that the input corpus consists only of natural properties of sound and canonical properties of Western Art music. In other words, no instructions are given as to what, say, a key, the circle of fifths, or musical tension is. The training procedure is roughly as follows: Each pitch-class is assigned an input unit, then each chord (triads only) is inputted individually to train the next layer; the output is then 'calibrated', meaning the correct label is given to the 'winning' output unit after training has taken place (e.g. the label 'C major chord' is given to the winning unit of input C-E-G.) This protocol is implemented to train the next layer to recognise sets of chords (or keys) and also to tune the system to other aspects of tonal music, such as the overtone series. Diatonic sequences of chords are also inputted, with higher frequencies of the more stable chords such as I and V– since they appear more frequently in diatonic music– and all sequences ending with either a V-I or IV-I cadence.

Tillman et al.'s model will establish the key centre of sets of melodies or harmonies in a way that does not depend on the tonic note being inputed– e.g. the correct key unit will be activated when the subdominant and dominant chords are inputted without the tonic chord. One of the most impressive features demonstrated is computation of hierarchical stability. Along with the primary activation (the winning units of chord and key), the other activated units coincide with the degree of tension that a transition to the respective chord or key would engender. When the key of C major is established within the system and a C major chord is inputted, the units representing the chords of G major and A minor will be in a higher activation state than will the chords of E minor, D minor or F major, and will have a far higher activation than will an F# major chord. The hierarchy demonstrated mirrors the cycle of fifths along with key

centre, and is an emergent function of the model.

Tonal hierarchy is central to (I), the phenomenon of contextual difference in music– the same sound induces different phenomenology according to its relation to a background key and harmony. Further to this, Tillman et al. ran simulations that mimicked empirical data on listeners' ability to observe alterations in two musical passages when each is played in a different harmonic context– we find it more difficult to identify changes or errors in passages when the context has changed (Bharucha and Krumhansl, 1983), and the model represents this role of harmonic context. In addition, the model will predict the next key in a piece, representing harmonic expectation, and can represent the psychological distance between keys in modulation.

It seems arbitrary to ignore studies like Tillman et al.'s when considering how music is experienced, at least insofar as music experience is conceived in relation to musicological theory. The explanatory role of this form of empirical study is to explicate conventions of music theory in terms of the non-musical: perceptual models that can relate music-perception to non-music-perception. There are numerous shortfalls with Tillman et al.'s experiment, such as the resolution of learning processes being far removed from that of real human exposure to music– the model processes a poverty of information relative to a real listener– along with the complete absence of rhythm from the scheme. However, these are not paradigm failures but rather practical limitations. Numerous musicological studies focus on particular aspects at the expense of others, Schenkerian analysis being an example of a model that fails to account for rhythm.

The strength of connectionism is that it can successfully model aspects of music that are well-defined by the musicological paradigm– such as dissonance, rhythm, key and hierarchical structure. It can produce a computational model that will give responses resembling those of a human listener, and it can learn conventions or rules automatically, without being actively programed or 'trained' by the analyst. This supports two claims: (i) that features distinctly associated with the musicological model of tonal music can be understood in

terms of perceptual functions that are themselves understood without reference to music (ii) the perception of features of music associated with the musicological model of tonal music can be understood on a non-representational model. (i) challenges the claim that music experience should be distinguished from sound experience, and (ii) claims that music perception– or, given the narrower remit of this essay, the perceptual functions underlying musical movement– is nonconceptual , in the sense given above.

2.10 Concluding Summary.

The argument made in this chapter has been for what I termed a *phenomenal view*, and has opposed an *abstract view*, where the former assumes musical movement is dependent on perception and the latter assumes musical movement is independent of perception.

1) Musical movement was introduced as a particularly significant and well-reported aesthetic feature.
2) An abstract view was considered in some detail, drawing on Roger Scruton's metaphorical conception of music. I attributed certain claims to an abstract view that derived from Scruton's writings: the claims that experience of musical movement is *intentional* and thus *representational,* and that it is thus an abstract object.
3) A section on the distinction between the terms *psycho-acoustic* and *acoustic* outlined Scruton's attempt to draw a distinction between musical features and acoustic features, summarising the proposed musical features that are not reducible to acoustic features. This argument led Scruton to claim that musical features are irreducible in the sense that they cannot be accounted for by empirical science. The claims that musical movement is *irreducible* and therefore *specifically musical* were then associated with the abstract view.
4) After some initial counter-argument, an extensive discussion of work in embodied psychology on the metaphorical cognitive structures, *image schemata*, looked to reject Scruton's claims by detailing how a *psycho-*

acoustic model can account for the vast majority of Scruton's proposed specifically musical features, most importantly the sense of motion, compulsion and the notion of metaphor. The utility of image schemata in accounting for features of musical movement supports the phenomenal position that the perception of musical movement is nonconceptual, depending on perception, and weakens the abstract position that musical movement is specifically musical.

5) An extended discussion of connectionist approaches to music perception concluded that the features of music that underlie musical movement– understood in terms of a musicological model of tonal music– can be modelled using a computational architecture that does not employ internal representations and that explicates perceptual functions not specific to music.

The abstract view discussed above assumes that musical movement is independent of perception insofar as it takes musical movement to be *conceptual*: representing the object as being a particular way, where this *way* is something sharable, communicable and understood in aesthetic experience as being an aspect of the object. This view of musical movement as being conceptual suggests that empirical accounts will not impinge on such aesthetic issues, since it is unclear how these imagined scenarios' listeners supposedly represent music as undergoing or as being can be related to non-musical behaviours or objects. As such, an abstract view implies some closure between the musically aesthetic and the non-musical; it can be said that an abstract view thus posits a *specifically musical* domain or experience.

This view can be countered by giving a *psycho-acoustic* account of musical movement. It was argued that Scruton's seven musically aesthetic features that were intended to illustrate the dichotomy between sound and tone could be almost entirely accounted for using models from music-psychology that explicate nonconceptual perception. Understanding musical movement as a phenomenon that is based in nonconceptual psychology supports the phenomenal view insofar as nonconceptual perceptual experience is apt to conflict with conceptual

perceptual experience: when I project the embodied schemata of *balance* onto a harmonic device, I may concurrently entertain the thought that there are in fact no real objects in balance. The experience of balance I have depends on my perception, in the same way as when I induce an illusion when pressing the side of my eye: just as when I relieve the pressure on my eye the doubled and distorted object I perceive disappears from existence entirely, when I am no longer perceptive of this particular harmonic device the balance I perceive disappears from existence entirely. Illusion in the experience of musical movement is considered in more detail in the next chapter.

Chapter 3

Musical Movement as Perceptual Illusion: accounting for the conflict between conceptual and nonconceptual experience.

3.1 Introductory Summary.

The previous chapter characterised two distinct views, *abstract* and *phenomenal*, as opposites that describe musical movement either in terms of scientifically irreducible concepts that the object represents (former) or as an effect of nonconceptual psychological processes (latter). I advocate the phenomenal view, arguing that perceived motion in music experience should be conceived in terms of embodied or nonconceptual psychological engagement. This argument was wrought by critiquing the contrasting abstract position and by delineating those psychological models that can provide a positive phenomenal account of musical movement. This chapter strengthens the distinction and expands on the phenomenal view by investigating musical movement in its relation to real or veridical movement. The contrasting positions respectively posed by abstract and phenomenal views are considered along with a third position– *humanism.*

That music perception seems to cross-pollinate with spatial-perception is a challenging fact of the matter, since musical-movement is a specious notion. Music has no moving parts; it is made up of sounds the most of which can be said

is that they *change* and are *ordered*, but they do not *move* in the relevant sense.[38] The conflict between the sense of musical movement and the absence of real movement can be approached in three ways:

Abstract: (i) musical movement is specifically musical and thus irreducible: it cannot be understood in terms of non-musical movement.

Humanist: (ii) musical movement is not paradoxical; it emerges from day-to-day interpersonal experience and discourse

Phenomenal: (iii) musical movement is a perceptual *illusion,* based on a conflict between perceptual experience and belief.

In support of (i) it has been argued that musical movement resists explanation in non-musical terms– that aesthetic features like movement are outside the purely acoustic field of possibilities, and that as such approaches that attempt to reduce the aesthetic to the non-aesthetic are implausible. View (ii) suggests that the word 'literal' is misused when it is said that nothing *literally* moves. This humanist view holds that, while listeners do not infer real movement from their experience, language is such that meanings are mapped across domains in all manner of experiences, not just the musical. In which case it seems that musical movement may just be a jot on the far larger landscape of human behaviour and language, where meanings and experiences flow back and forth from their sources and where 'literal' becomes a far more restricted term. Finally, (iii) can be directly opposed to (i) since on this view musical movement is an effect understood in terms that extend beyond the aesthetic or musicological, into the empirical realms of psychology.

I argue that each of these contrasting positions has persuasive elements. However, the following chapter is committed to the phenomenal view, and conceiving musical movement as a perceptual illusion is a key aspect of this

[38] Of course, sounds do in fact move in the sense that sound waves physically move across space to our ears, although this is an unrelated phenomenon to the perception of musical-movement.

view. As discussed in chapter 1, the phenomenal view posits that musical movement does not depend on specifically musical features: the experience of movement is a product of day-to-day psychological mechanisms. That music-aesthetic features might be understood in terms of quotidian human behaviours is a notion in line with humanism, but the view offered is clearly distinguished by the central claim that movement apparent in music is an illusion. The illusion of musical movement can be conceived as a conflict between nonconceptual and conceptual perceptual abilities.

- The following begins by outlining some of the precedents for a psychological theory of the sort I am arguing and also frames the current discussion within some of the broader literature on musical movement, continuing from the discussion of Scruton in chapter 1.

- Section two reiterates the options (i), (ii) and (iii) given above and gives a brief overview of (i) in continuation from chapter 1.

- The discussion moves to humanism, finding exemplars in Andy Hamilton and Roger Scruton. A phenomenal view can be aligned with humanism in part, but diverges on the central point of describing musical movement as perceptual illusion.

- In the fourth section the notion of perceptual illusion is developed, taking Gregory Currie's formulation as a starting point. Ecological theory, pioneered by James Gibson and applied to music by Eric Clarke, is used to demonstrate how the experience of movement and space in music is owed in part to processes concerning the ecological perception of movement and space. Ecological theory provides a framework whereby the conflict between nonconceptual perceptual function and knowledge can be better understood.

- The next section discusses the importance of the temporal aspect of music in the experience of musical movement, how the experience of musical time departs from what Susanne Langer calls 'clock time', and how it can be elucidated using work from cognitive science on *cognitive categorisation*, again positing a nonconceptual psychological account.

3.2 Psychological Theories of Aesthetic experience.

A key aspect of the phenomenal view is that it approaches questions pertaining to music experience using scientific psychological theory. This view thus relies on a multi-disciplinary approach where issues are framed using work in aesthetics, musicology and philosophy but rely on support from psychology. Such an approach is, I argue, less common than one that frames and supports arguments within a single discipline, and rarer still for particularly connecting philosophical or aesthetic issues with psychological research. Chapter 4 considers a range of views in aesthetics and musicology that take an abstract position towards musical movement without making connections with psychology. However, an approach that connects questions pertaining to the aesthetics or philosophy of music with psychological models does have some important precedents in the literature, and it is the role of this section to provide this background.

The phenomenal view is *psychological* in as much as it attributes a central aspect of musical experience to a perceptual ability understood by reference to a model of human psychology. Contrasting views can be described as *conceptual*, given that they attribute aspects of musical experience to properties of the object, understood by reference to a musicological or philosophical model, that a listener becomes acquainted with. Musicologists will tend to imply the latter view– Heinrich Schenker and Arnold Schoenberg being pertinent examples– along with philosophers and aestheticians such as those considered in chapter 2 and chapter 5. However, it could be argued that the first psychological theory of

music experience belonged to the most eminent writer in modern aesthetics, Immanuel Kant.

It was noted in chapter 2 that Mark Johnson derived his concept of 'image schemata' from the Kantian concept 'schemata', denoting nonpropositional structures of the faculty of imagination. In *The Critique of Judgement,* Kant wrote that such structures could mediate between the faculties of understanding and sensation by consisting of elements of both. While Kant initially intended 'schemata' to fill certain gaps in our comprehension of perception and cognition, their nature as nonconceptual mental structures also provides opportunity to elucidate aesthetic experience. For Johnson's reinterpreted image schemata, this opportunity fell to music-psychologists composing a secondary literature, while for Kant the schematising function of imagination comprised a central element in his aesthetics.

In the *Critique of Judgement,* Kant notes that a judgement of the beautiful proceeds from a subjective feeling and as such is not dependent on subsuming the perceived object under a concept, thus suggesting that such judgements should be aligned with judgements of the agreeable– of a kind where someone claims to find something, e.g. food, good or pleasing. However, a judgement of the beautiful also has characteristics of objective or cognitive judgements, most significantly the character of a normative claim to universal agreement. Given these dual affinities, Kant was led to postulate the conception of a 'free play' between imagination and understanding. This 'free play', or 'free harmonising' occurs without the object being subsumed under any particular concept but involves the schematising function of imagination and understanding operating as if they were. Kant's notion of free play allows him to explain certain ostensible truths of aesthetic experience by recourse to elements of a subject's psychology, the basic functions of which are described independently of the aesthetic.

While the notion of free play is seemingly reserved for judgements of beauty only, it remains that Kant seeks to account for aesthetic experience using a model of psychology that extends well beyond that of aesthetic perception and is

in this sense a psychological theory of aesthetic experience, even if there are major differences between Kant's approach to psychology and modern empirical psychology. The force of his view rests on the intelligibility of the notion of free play, an issue that is revisited in chapter 5. Furthermore, Kant's focus on pure beauty– that which excludes any form of representation– prior to the *Antinomy of Taste*, along with the notion of disinterestedness and a free play of cognition that has no concept, could suggest an overly narrow, formalist view.[39] Issues concerning Kant's view such as those of putative formalism, the universality of aesthetic judgement and free play of cognition will be given further attention in the ensuing chapters.

Kant's aesthetics explicated particular aesthetic experiences with recourse to a kind of mental process that cannot be captured in terms of culture, belief or objective judgements, akin to a phenomenal view. However, the grounding for his theory was not the empirical but rather was what could be described as the metaphysical, thus suggesting a divergence from the phenomenal view offered here. Leonard Meyer provides an example of a cross-disciplinary approach that couches claims within the area of musical aesthetics while supporting them with research drawn from empirical psychology.

Meyer developed a psychological view of emotion in music that drew on work by philosophers such as John Dewey, Henry D. Aiken, Susanne Langer, and George Mead to cast the particular issue of how the violation and fulfilment of expectancies produces feeling in a subject. By describing Dewey's 'Conflict theory of emotions' as the point of origin for contemporaneous theories of expectancy, Meyer suggests that his psychological theory of emotion has its roots in philosophical thinking. However, he also demonstrates the efficacy of empirical psychology in appraising such thinking.

Three 'Principles of Pattern Perception', based in Gestalt psychology, are posed in Meyer's *Emotion and Meaning in Music* (1956) to help account for our emotional responses to music. The first principle, 'The Law of Good

[39] See Guyer (1979), chs. 5 and 6.

Continuation' is fundamental to Gestalt psychology: 'A shape or pattern will, other things being equal, tend to be continued in its initial mode of operation… Among other things this law helps to account for our being able to hear separate, discrete stimuli as continuous motions and shapes' (p.92.) Principle two, 'Completion and Closure', denotes the Gestalt precept that objects that appear incomplete will be completed in perception. The final principle, 'The Weakening of Shape', discusses the features of grouping, similarity, difference and proximity in the perception of shape, and the manner in which these features can coalesce along with the principle of continuance to destroy shape.

These principles were applied to various aspects of tonal music, including melody, counterpoint, phrasing, structure, pitch, harmony, rhythm and instrumentation. Meyer's argument was that Gestalt principles of perception operate at many levels of music perception, alongside encultured and learnt meaning. This approach was developed by Eugene Narmour (1990), certain of his claims having been supported with empirical testing, notably by Jamshed Bharucha and Keiko Stoeckig (1986) who examined basic listener responses to expectation. David Huron makes the claim, identical to Meyer's, that expectancies function in music to provoke emotion, using a complex five-stage theory of expectation.[40]

There are notable similarities between Meyer's psychological theory and the phenomenal approach: firstly, the methodology of drawing on a multi-disciplinary corpus that includes aesthetics and philosophy to formulate claims while relying heavily on researches in psychology to support those claims; secondly, the position that our understanding of music should proceed from a psycho-acoustic perspective of music listening. Indeed, the objection to Scruton's segregation of musical *tone* given in chapter 2, whereupon a clear-cut distinction between the acoustical and musical is rejected, echoes Meyer's thinking on

[40] See Huron 2006.

musical universals: 'The universals central for music theory are not those of physics or acoustics but those of human psychology.'[41]

3.3 Available positions on Music and Movement in the Literature.

Musical movement has increasingly become a target for psychological approaches over the last three decades, many such approaches having been discussed in chapter 2 and to be further considered in the section below on psychology. However, thinking about music and motion is arguably as old as formalised thinking about music. Lee Rothfarb suggests that the earliest writers in music-studies, in ancient Greece, conceived the temporal character of music as a form of motion:

> The extraordinary ethical power of music was thought to derive from its inherent motion – motion being the recognized foundation of existence. Aristoxenus, the first author to attempt a sustained technical discussion of music, is also the first to go beyond metaphysical speculation and theorize concretely about musical motion (2002: 930)

Over 2000 years ago, Aristoxenus wrought a conception of distinguishable scale degrees with their own functional identity and tendencies towards or away from each other– a concept of musical force.[42]

Rothfarb plots music and movement through history, evincing key conceptions from the ancients through medieval, Baroque and Classical periods up to early 20th century examples in August Halm, Heinrick Schenker, Ernst Kurth and Arnold Schering. The influence of the conceptions of musical movement wrought

[41] See Meyer 2000: 276. E. Glenn Schellenberg has provided some experimental evidence for the notion that Gestalt principles have universal applicability by studying and comparing the expectancies of Chinese and American students as they listen to music of both their own and foreign cultures.
[42] Aristoxenus, Elementa Harmonica, Book II, in Barker, Greek Musical Writings, vol. ii, p. 180.

by these analysts can be felt in more recent writing by those working in music-psychology, such as Larson and Van Handel, Krumhansel and, perhaps most famously, Lerdhal and Jackendoff with their 'Generative Theory of Tonal Music' (1983)

A focal point in the recent debate within aesthetics has been the extended back-and-forth between Malcolm Budd and Roger Scruton; whether description of music as movement can be called metaphorical, and as such the role the metaphor of movement has in experience are the principle points of disagreement. Budd (1985) poses the issue of musical movement as a binary choice:

> The first declines to take the talk of movement seriously and maintains that when we speak of an ascending phrase all we mean is that later notes of the phrase increase in pitch. The second construes as metaphorical the description of music in terms that stand for forms of movement. (p.45)

The first position attributes the notion of musical movement to a terminological error, and is held by Budd, while the second permits that description of music in terms of movement is metaphorical, and is associated with Scruton. N.b. the above may suggest Budd is attending to musical *description* rather than music *experience*, and the notion that we describe music as a metaphor of movement can be separated from the notion that we experience is as such. However, it is clear that Budd is not attending only to description in his proceeding argument; for example his almost immediate characterisation of the second interpretation as one 'that assigns to the concept of movement a significant role in the experience and description of music' (ibid.) I will give some space to the points Budd makes for his view and give a rebuttal before considering Scruton's view.

Responding to Carroll C. Pratt's thesis that a basic character of music, both in experience and description, derives from its operating as a metaphor for movement, Budd argues that the analogue between each domain is too weak to

support metaphor.[43] For example: while a body moves smoothly and gradually through space, a melody is composed of tones that change abruptly, traversing musical space with sudden changes of position– a closer sonic analogue would be a siren where pitch fluctuates smoothly. Relatedly, Budd argues, it is plausible that a particular high note could in fact appear phenomenologically lower than a particular low note– that a particular high note's sounding higher than a particular low note is contingent.[44]

Terms that imply bodily movement– such as 'agitated' or 'restless'- may have an intuitive rightness when applied to music, but this, Budd argues, does not suggest that music might share the same character of the movements implied by such terms. Rather, the aptness of such terms stems from its capacity to provoke just those emotions that in turn provoke a bodily response. On Budd's view, we misconstrue our natural response to the felt emotion of music listening as the immediate embodied response to music, whereas in fact the embodied response is secondary to the emotional response. This argument denies that the sense of movement felt when listening to music is a response to hearing music as a metaphor movement (Scruton's claim) and is also in opposition to the view that the sense of movement emerges from certain aspects of embodied psychology (phenomenal view). That said, it is important to stress that a sense of musical movement is an aspect of Budd's view, but is conceived as secondary to an emotional response.

A final point Budd makes against the view that musical movement is metaphorical is that use of the concept of metaphor is misleading given that the 'function of metaphor is manifold [so] unless the underlying point of a metaphor is understood its characterisation as a metaphor is unrevealing' (p.45.) I devoted an extended discussion to the definition of metaphor in chapter 1 so will not revisit this here. Budd's conclusion is that movement provides a highly felicitous *analogy* of music but is not basic to music perception or description. As such,

[43] Pratt 1931, 157.
[44] Budd 1985: 44.

spatial vocabulary can be reduced to non-spatial terms, rendering spatial references eliminable.

Before revisiting Scruton's alternative view, I will present a short rebuttal of Budd's position, summarized as: (1) description of the metaphor of musical movement is reducible to non-spatial terms and (2) the experience of musical movement is secondary to emotion. Firstly, it can be said that it is open to debate as to what kind of relation is necessary between musical characteristics– like melodic contour– and motion characteristics– like linear motion along a single axis– for that relation to be held as metaphorical. Indeed, this issue is central to understanding musical movement. Without relying on the conception of metaphor as a projection of embodied structures wrought in chapter 1, it can still be argued that for metaphor to be distinguished from other relationships, like that of literal representation, a metaphor will be an incomplete specification, both in terms of how it represents the target domain (music) and the source domain (movement). Tones can have properties that distinguish them from bodies moving through space while still operating as metaphors of movement. There are more serious disparities between tones and moving bodies than those Budd notes, most obviously the difference in sensory modality, given that movement tends to be primarily perceived visually or kinesthetically. Certain conflicts are to be expected given that music is not designed *solely* with respect to the metaphor of movement: certain properties of music such as discrete pitch-classes are determined by the constraints of sound and the human auditory system. As such, the point that progress through distinct scale degrees differs to progress of a body through an environment is not enough to discredit the view that melodic contour is a metaphor of movement.

Further, now with recourse to the arguments given for the phenomenal view, there is a plethora of psychological, physiological and analytical data available to link music with movement– much of this work was done in chapter 1, although further pertinent researches will be discussed below. These data then serve equally to debunk Budd's suggestion that the sense of musical movement is secondary to an emotional response, given that they suggest embodied

experience of motion and related characteristics have primacy concerning the sense of musical movement.

Contrary to the view given in Budd (1985), Scruton presents the experience of movement as irreducibly metaphorical.[45] When I hear a melody I hear a series of temporally parsed periodic sounds, but I also hear a movement up and down, towards and away from a harmonic centre. In this sense musical experience has 'double intentionality':

> You hear a succession of sounds, ordered in time, and this is something you believe to be occurring– something you 'literally hear'. And you hear *in* those sounds a melody that moves through the imaginary space of music. This is not something you believe to be occurring, but something you imagine.[46]

As Budd (2003) claims, and Scruton (2004) admits, 'double intentionality' is not given adequate delineation and so renders problematic any response to the issue of what it means to say something 'involves' metaphor, although Scruton suggests that to resolve this issue we would need to resolve a bedrock issue pertaining to intentionality generally.

Budd argues that the general import of the metaphor of movement in Scruton's view is overstated, noting that while timbre can be described in terms of movement ('forceful', 'driving',) we would be far less likely to bring to mind such descriptions in experience, or indeed attempt to explain our experience with such descriptions. Movement plays a role in our understanding of musical experience, as mentioned above, but motional and spatial terms are not irreducible. This argument that all musical terms that seem to ascribe motion can in fact be reduced to the non-spatial is queried by Stephen Davies (2008), who advances the example of the octave as a theoretical concept that could not obviously be described without reference to movement or space. However,

[45] Scruton (1983; 1997; 2004); see chapter 1.
[46] Scruton 2004: 184.

Davies (1994) does posit, contra Scruton and Budd, that all spatial and motion terms are in fact used in their literal instantiation, akin to the way we use equivalent terms in normal language– shares have gone 'up' or 'down', mental state is 'high' or 'low', etc. Andy Hamilton (2007) also seems to indicate this position. This is a view that is discussed in full below in the section on humanism.

On the basis of the literature considered so far, the occupied positions with regard to musical movement seem to be: (a) the experience of musical movement is an imagined metaphor that is irreducible; (b) musical movement has phenomenal veridicality but any description in motion or spatial terms is reducible to non-spatial terms; (c) terms used to describe musical movement are in fact used literally but to refer to movement in a secondary sense that includes temporality. These positions can be clearly situated within the three broad responses to the problem of musical movement given in the introduction. (a), Scruton's view that the role of imagination and metaphor renders movement an irreducible phenomenon, is an example of (i) above– a dualistic view of music and world that separates musical movement from other forms of movement, from the body and from empirical study. Both (b)– Budd's view that the sense of musical motion is central but all reference to motional terms can be reduced– and (c)– Davies's view that motional terms are used literally but may not be reducible– are examples of (ii)– the argument that the apparent conflict inherent in the notion of musical movement is misconceived or soluble.

The final option given in the introduction, (iii)– that musical movement consists in perceptual *illusion*– is not represented in the discussion above but has considerable support in psychology. This support will be considered below after further discussion of the abstract and humanist positions. These options, (i), (ii), (iii), will be important points of reference below and in the ensuing chapters.

3.4 Three approaches to musical movement.

The remainder of this chapter develops and/or addresses the three approaches to musical movement distinguished in the introduction:

Abstract: (i) musical movement is specifically musical and thus irreducible: it cannot be understood in terms of non-musical movement.

Humanist: (ii) musical movement is not paradoxical; it emerges from day-to-day interpersonal experience and discourse.

Phenomenal: (iii) musical movement is a perceptual *illusion,* based in a conflict between perceptual experience and belief.

3.5 Abstract view.

As noted in chapter 1, Andy Hamilton distinguishes *abstract* and *humane* conceptions of music, suggesting that music is 'abstract in form but humane in utterance' (2007: 114.) He describes the 'abstractionist position' as one that 'detaches music from the world, making it the most abstract of the arts– a pure "art of tones"' (p.95.) This use of 'abstract' aptly characterises the abstract view as wrought in this thesis, suggesting the position as one that invokes an idealised domain outside the physical world. To take an abstract view on music is to prescribe that musical features such as those described by musicological analysis are specific to a closed musical domain with independence from the non-musical. By contrast, to claim that music is 'humane' is to claim that music should be reconciled with the human sphere of culture, society etc.

I have given some key examples of the abstract view above, most significantly Scruton's view that the metaphorical nature of musical movement motivates a separation of sound from tone (chapter 1). Other famous examples include

Heinrich Schenker's analytical model, which formalises music in terms of a fundamental tonal line– or *Ursatz*– deep in the background of the harmonic and melodic form. Hanslick and Schoenberg offer other important abstract views, which will be discussed in full in chapter 4. Central to such views is the notion of the *specifically musical*– the musical is in some important sense independent from the non-musical and as such the former cannot be understood in terms of the latter. Given that considerable attention has been given to the abstract view above, that the connections so far made between music and psychological structures is itself a direct critique of the abstract view, and that the view is considered in more detail in chapter 4, I will not give any more space to it here.

3.6 Humanism.

A humanist will seek a role for human experience in a theory of the aesthetic, and cast the line between music and other human affairs as permeable if not erroneous. While Scruton argues that the experience of musical movement consists in an aesthetic transformation that cannot be reduced to the sum of its physical parts, he nonetheless gestures towards a humanist standpoint when detailing the nature of this transformation: '[w]hen we attend to an appearance for its own sake, the world that we have bracketed comes back in another form' (Scruton 1997, 229.) This view, where the aesthetic draws on the worldly to create the otherworldly, can be distinguished from a strong humanism that prescribes an unconstrained inter-relation of artwork and world. Indeed, a humanist conception can suggest that the whole enterprise of music and metaphor is misjudged– that music's position in the wider cultural space renders ascriptions of musical movement literal rather than metaphorical. Andy Hamilton (2007) offers this view, arguing that much musical terminology is not reserved exclusively for music but is universally applicable. Rhythm is the paradigm case: we attribute rhythm to normal speech, to walking, to sexual intercourse; and rhythm is essential to poetry as well as dance (Hamilton 2007: 126.) The non-musical applications of rhythm lead Hamilton to claim that 'human bodily movement is as much the target of metaphorical projection as

music itself' (2007: 145.)

Rhythm is an aspect of life, not merely an aspect of music, so by employing the term in descriptions of the non-musical we seem to draw on musical experience. This humanistic sentiment blocks claims about musical movement being irreducible by exposing the bidirectionality of the metaphor. 'Music and life are interfused' as Hamilton says (ibid). Rather than the unidirectionality of Scruton's view, where the spectacle of life is revealed in musical form, Hamilton's humanism uncovers the imprint of music on our day-to-day language and thought. The pervasiveness of features like rhythm in the non-musical shows that life is lived in music *and vice-versa.*

However, while the bi-directionality of the metaphor of musical movement might curtail attempts to isolate musical metaphor from other experience, it is not clear why it thus renders projection across domains– either from space to music or vice versa– literal rather than metaphorical. It might be asked why metaphors cannot permit a potential two-way projection and remain metaphors. Making do with clichés: if I see an old oak tree as a weary and life-worn man, can I not also represent the steely resilience of an aging relative with reference to an old oak? The various instances of anthropomorphic oaks in literature and cinema suggest that the relation between the domains of human subject and tree is robust and transparent for the audience, and there seems no obvious reason to promote one direction of projection above the other. This bi-directionality does not thus render the representation literal. Hamilton's objection seems to be that the fact that bodily movement is projected in musical experience does not constitute evidence that metaphoric projection of bodily movement is a source of musical experience, since music also acts as a source for metaphors of bodily movement. While the bi-directionality of metaphor is an instructive point, it is unclear why it should weigh against a conception of metaphoric projection in either direction.

Humanism as Hamilton presents it can be reconciled with the phenomenal view: by recourse to Johnson's theory of image schemata, musical movement can be understood as metaphorical in the same way that everyday metaphors like 'I'm

feeling down' can be so understood. The phenomenal view posits that the sense of musical movement emerges from the operation of psychological structures that derive from embodied experience and are utilised in day-to-day cognition. When the relevant sense of metaphor accords with Lakoff and Johnson's (1980) 'metaphors we live by', the crux of humanism– understood as couching musical movement in terms of human life and discourse– is endorsed while retaining a conception of musical movement as metaphorical.

Hamilton's humanism can be separated from a phenomenal view in a similar way to Scruton's weaker version of humanism: by its implication that experiences of musical movement entail grasping aspects of a musical work as concepts. When Hamilton discusses 'rhythm' he implies a concept, and experiencing rhythm is conflated with gaining mastery of ascriptions of rhythm. The implicated form of metaphor seems to be *characterisation*, as considered in chapter 1.

> The universality of rhythm means that human bodily movement is as much the target of metaphorical projection as music itself… In order to learn to ascribe emotions, one does not have to experience music as well as human reactions and behaviour; emotion-ascriptions to music are secondary compared with those to people. In contrast, we do not project from a primary sense of rhythmic bodily movement to a secondary sense of musical rhythmic bodily movement because we have already reached the musical level of description in describing human bodily movement as rhythmic. (ibid)

This is the argument that rhythm is not based in embodied experience of movement and then projected onto music, since we have a 'musical level of description' of rhythm prior to any sense of non-musical rhythm. However, it should be conceded that there is a difference between 'learning to ascribe' emotions and merely experiencing emotions– ascription is not a condition on emotion. Indeed, the same is true of music, which is experienced beyond the descriptive powers of most experiencers. So claiming that the necessary 'level of description' of 'rhythmic bodily movement' is achieved through mastery of

'musical rhythmic bodily movement' is not equivalent to claiming that our *experience* of bodily rhythm originates from musical experience.

There is experience that does not depend on being available to description, exemplified by the various psychological models considered in chapter 1 and in the following. One might experience what we describe as 'rhythm' without having the descriptive perspicacity necessary to use the term correctly. In which case, any humanism must acknowledge the boundary between epistemic acquaintance, typified through descriptive mastery, and nonconceptual experience.

To continue this theme on rhythm: a picture of how a capacity for rhythm is achieved can be imagined without reference to explicit knowledge. From birth if not before we feel our heartbeat and that of our parents; we feel the pulse in our veins and the cycle of breathing; we experience footsteps through our parent's body when carried, via audition as people move around us and then through our own locomotion. Periodicity is pervasive in the experiential corpus from the start of life, and the gift of abstract thought allows us to be interested in displays of designed periodicity that compound pulse into rhythm. At a more basic level, humans categorise, group and segment the environment, the description of these psychological capacities being ancillary to the capacities themselves. To hear rhythm is to exploit these most fundamental capacities, thus inviting the question not of whether rhythm is learned through explicit knowledge, which seems absurd, but of what this freewheeling of psychological capacities can provide– a point developed in chapter 4 in the discussion on value.

3.7 Phenomenal view.

The view that musical movement is a perceptual illusion emerges from the rejection of both the abstract view and the humanist notion that music literally moves, since these exclusions close the possibility of conceiving musical movement in terms of belief. Consider again the example given at the beginning

of the thesis: if I stare at an object and proceed to put pressure on the edges of both eyes the object may appear to distort and become doubled. I never come to believe that another object has appeared or that the original object has changed in a way accordant with its appearance, but my visual experience is exactly that of two identical objects. This is a simple illusion that demonstrates how belief and perception can conflict. Here I will give some characterisations of perceptual illusion, and offer some examples of how musical sound engenders a perceptual effect of movement independently of thought.

In discussing film, Gregory Currie makes a distinction between perceptual illusion and cognitive illusion.[47] A cognitive illusion entails that the subject forms a false belief: if I watch a nature documentary and on viewing footage of a ferocious tiger approaching I come to believe that a ferocious tiger is approaching, it can be said that I am subject to a cognitive illusion. On the other hand, a perceptual illusion occurs when a subject's experience seems to conflict with what she knows to be the case. A popular example of a perceptual illusion is the Muller-Lyer illusion where two identical lines appear to be of different lengths:

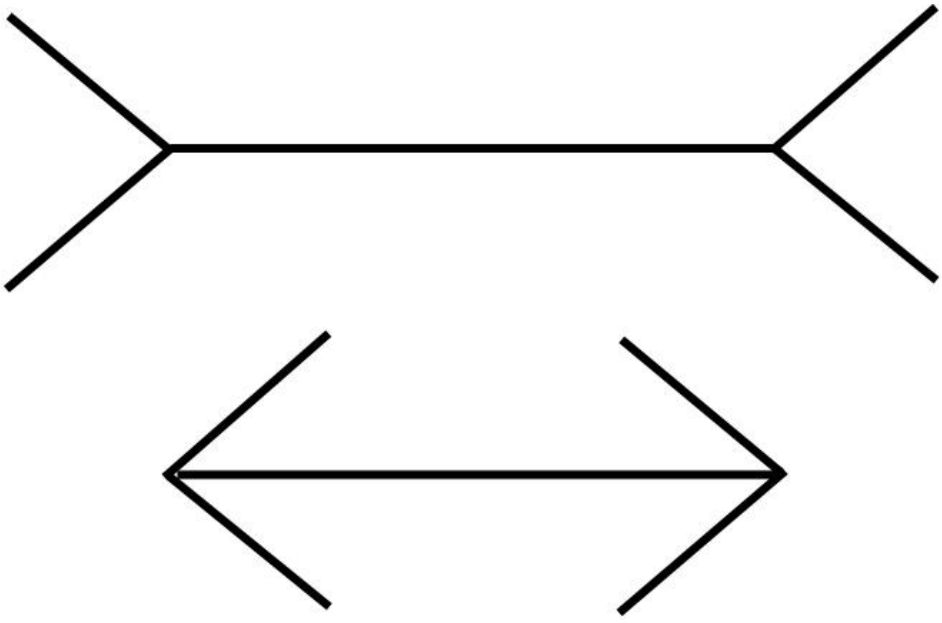

Fig. 3.1

[47] Currie 1995: 19-48.

Here the direction of the arrowhead shapes on the ends of each line affects how the length of each line appears, even though a ruler can confirm the equivalence of length.

It is important to establish the role of belief in distinguishing cognitive and perceptual illusion. If I am under the illusion that a ferocious tiger is approaching when in reality I am merely viewing footage on a screen, my illusion is based on a false belief such that were I subsequently to come to believe that the object before me is in fact not a tiger but merely a screen, I would no longer be under an illusion. The Muller-Lyer illusion does not depend on the subject's belief in this way. It may be that on first viewing the Muller-Lyer illusion a subject does believe that the bottom line is longer than the top, and as such her belief and experience cohere in a manner accordant with a cognitive illusion. However, once it is demonstrated that both lines are in fact equal in length, and the subject comes to believe this fact, the lines will still appear to be of different lengths. This represents a conflict between experience and belief. As Jesse Prinz has claimed, if an illusion 'persists even after we learn that it is an illusion, then it resides in a processing system that is not directly influenced by knowledge.' (Prinz: 2004; 233)

I argue that musical movement is a perceptual illusion. Analogous to the Muller-Lyer illusion, the belief that musical sound does not move has no impact on the sense of movement. The effect of musical motion does not consist in the listener believing, say, a rising melody presents a rising object. Indeed, an experience of musical movement lacks the central signifier of object-movement in having a source (or sources) fixed at one point in space, and lacks the bodily responses attendant with experiences of self-movement, such as proprioceptive and vestibular feedback. The effect could not be mistaken as real by a reasonable listener, and thus could not operate as a cognitive illusion.

One approach to perception that has garnered considerable interest in music analysis and music-psychology in recent years pertains to *ecological theory,*

attributable to the work of psychologist and philosopher James Gibson.[48] This theory presents perception in terms of *function* rather than what is now the traditional cognitive science approach where perception is understood in terms of *representation.* Gibson argued that our perceptual functions are shaped reciprocally by the structure in our environment, such that we perceive changes in the environment not by computing over numerical or representational information but by taking cues from fixed structure in the environment. For example, on an ecological model I perceive that the glass on the table affords grasping with my left hand, not because I perceive that the glass has a 20cm radius, but because my hand has evolved and developed– both ontogenetically and phylogenetically– in an environment where there are glass-sized things and where manipulating them has a survivalist benefit. In Gibsonian terminology: the environment is inherently *structured* and perceivers *resonate* with *invariant* features of this structured environment; a perceiver has developed phylogenetically and ontogenetically to reciprocate the structure of the environment such that particular environmental conditions can be said to *afford* particular behaviours by particular perceivers (the concept of *affordance* is implemented by the principle of *specification*, which is similar in style to the semiotic principle of signification.)

Two terms that may attract most attention in this approach are 'structure' and 'resonate'. 'Resonance' is a term used to contrast with the idea of internal representation in perception, and is tailored to the view that the external world is not in fact 'one great blooming, buzzing confusion", as William James argued, but is full of invariants or structure.[49] Perceivers do not interpret a poverty of information with their own top-down processes but rather reconcile their own structure with that of the environment and act on the environment accordingly, thus engendering a perception-action cycle. Gibson makes little headway on the concept of 'resonance' other than to say that it might also be termed 'tuning', that it is 'self-reinforcing' and that it has as its analogue a self-tuning radio. Lawrence

[48] For ecological approaches to music study see Clarke 2005, Moore (2010), Windsor (2000), Borgo (2007),, DeNora (2000), Ansdell (2004) and Leman (2008).
[49] James, William, *The Principles of Psychology* (1890: 462).

Shapiro has attempted to provide elucidation using psychology and neuro-psychology.[50]

It could be argued that to demand a full account of 'resonance' is to demand an account of the *mechanism* by which organisms perceive, and that as such the issue does not disturb the conceptual coherence of Gibson's theory. One of the best defences of this approach to perception is acknowledgement of the field of embodied cognition that has grown from it, particularly the successes in A.I. and robotics where machines are built without using top-down processes or centralised processing units.[51]

The concept of structure will be elucidated using an example of the perception of motion that has been described using ecological theory: *approach*. Certain particular changes to the perceptual array characterise or 'specify' the approach to, or of, an object. As Gibson writes, regarding visual perception:

> Approach to a solid surface is specified by a centrifugal flow of the texture of the optic array. Approach to an object is specified by a magnification of the closed contour in the array corresponding to the edges of the object. A *uniform* rate of approach is accompanied by an accelerated rate of magnification… The magnification reaches an explosive rate in the last moments before contact. This accelerated expansion… specifies imminent collision.[52]

There are a number of elements described here that will be invariant in any perception of an approaching object to the point of contact: centrifugal flow of the optical array; accelerated rate of magnification; explosive rate of magnification just before impact. Features such as these, then, help exemplify and thus elucidate the concept of 'structure'.

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[50] Shapiro 2010: 35-7.
[51] See Randy Beer (2014) and Shapiro (2010 chapter 5 for review)
[52] Gibson 1979: 231, cited in Clarke 2005.

The first book-length study to offer an ecological approach to music perception is Eric Clarke's *Ways of Listening.*[53] Clarke uses the work of James Gibson to explain aspects of music by their relation to environmental sounds;[54] certain properties of audio-perception that reflect an organism's relationship with its environment play important roles in music perception. Ordinary perceptual functions are engaged during music listening– the same functions that facilitate basic perceptual abilities like those pertaining to space or movement– and as such some of the psychological mechanisms that come into play when listening to music are those that have developed to respond in a structured way to structured elements of the environment.

The direct relevance of ecological theory to this essay is, of course, its potential to explicate the sense of motion engendered in music perception and its nature as a perceptual illusion. Clarke has made certain substitutions to Gibson's account of the visual perception of approach to render it pertinent to audio perception: dynamic increase for flow of optical texture and pitch stasis for centrifugal quality (Clarke 2005: 77.) However, 'harmonic inertia' or 'harmonic stasis' may substitute just as well for the centrifugal quality, given that the only characteristic that is being adopted from the visual aspect of 'centrifugal flow' pertains to an inertial or static quality. More important are the features of magnification (volume swell), accelerated magnification and the explosive rate of magnification before impact. Another invariant characteristic of an approaching sound source, in contrast to visual perception, is the change in high-frequency range. High frequencies are attenuated across distance, meaning that an approaching sound source will not only increase in dynamic but also in intensity of high frequencies.

It can be argued that these structural elements are evident in passages of music that have corresponding motional effects for the listener. As an example, consider the introduction to 'Blackened' by American heavy metal band *Metallica.* The first audible sound is two guitar parts playing in sixth-intervals

[53] Clarke 2005.
[54] See Gibson 1972, 1977 and 1979.

towards the upper range of an electric guitar; the parts swell in volume from silence and as such it is difficult if not impossible to indicate the precise point at which they become audible. They also have a 'pinched' or 'squeezed' sound which is partly attributable to the scooped guitar tone (where a large band of mid-range frequencies are eliminated almost entirely) and the high level of compression produced by the high-output Mesa/Boogie amplifiers that were used, but also due to a high-cut filter applied to the overall mix. As the volume swells the harmony can be heard as a 4-bar progression in block fifths on distorted guitar rooted along an Eminor scale from B1 to E2; the high-cut filter gradually opens in tandem with the dynamic increase to allow more high frequencies through across the mix. A new melody part is heard around 29sec, which is distinguished from the earlier melody by not having another part shadowing a sixth below. Over the next 7 seconds we hear the final 4-bar cycle with the more prominent melodic guitar part and an accelerating rate of dynamic increase. At around 35 sec, on the final (tonic) note of the introduction, the rate at which the volume swells and the filter is opened increases exponentially for the three beats of that final note until, without interruption, the full band enters at top volume and equalised to fill the range of audible frequencies, and we hear a *tutti* of drums, bass and layers of unison distorted guitar.

This passage has many of the features associated with the approach of a sound source such that it could be said, in the language of ecological theory, to *specify* approach: the gradual increase in dynamic coupled with an increase of high frequencies; the short harmonic cycle providing a correlate to centrifugal flow; an accelerated rate of dynamic increase towards the end of the passage; an exponential increase of dynamic and high frequencies before immediate introduction of a full texture melody performed by the full band in unison. We could extend the theme further and suggest that the indistinct opening of the introduction, with attenuated high frequencies, specifies the emergence of a sound source in the distance; perhaps the new lead-guitar melody in the final 4-bar cycle could also specify the movement from background to foreground: the

foregrounded melody specifying the arrival of a clear unitary body in close proximity, before that body makes violent impact.

Whether this passage of 'Blackened' is construed as either self-movement or object-movement seems to be open. The homophonic texture coupled with the global treatment in production of all parts suggests some form of unified or singular motion, but not distinctly motion of either the listener or the music.[55] My own experience is a powerful sense of an approaching object: when listening with headphones or through a high quality sound system, there is an impulsion to draw back as the passage develops, the arrival of the *tutti* causing a jolt of the head backwards as if the music has made impact.

The points of correlation between an ecological specification of approach and the opening of 'Blackened' may be somewhat remarkable, but many instances of 'motional and gestural invariants' in music will hold a more meagre resemblance to their environmental counterparts (Clarke 2005: 74.) However, as discussed above, music experience may derive many of its qualities from spatial perception while the relation between music and environment remains tenuous. But this tenuousness should be expected: were music experience to have a strong basis in some particular mode of perception or life, agreeing on an account of that basis would be far simpler. And to reinforce the theme of this essay, musical movement is not conceptual but rests on perceptual processes that can operate independently of concepts and/or belief. In lacking the robust belief (true or otherwise) that an object is approaching, the sense of approach a musical passage can deliver will be of a different order to an experience of real movement or a cognitive illusion of movement.

An ecological approach can extend to proposing music specify a 'virtual environment' that consists of a constellation of 'virtual sources.' Each distinct sound in a piece of music can be said to have its own virtual source, and the

[55] Clarke would likely conclude on this basis that this is self-motion, but does acknowledge the difficulty of distinguishing self- and object-motion with the example of sitting on a train at a station and being unsure of whether the train opposite is beginning to depart or the train on which you are sitting is.

qualities of the sound reflect the nature of the source. These virtual sources create an effect of movement by sharing structural properties with real world moving sound sources. Clarke has usefully enumerated some of the means by which sound can specify motion: "Virtual motion is specified by a number of different properties of sound, among them rhythm (rate and manner of motion), dynamic (approach, withdrawal), pitch (direction) and articulation (weight, force)" (ibid p.184).

It is not pertinent to go into greater depth on further examples of the ecological specification of motion in music, given that this is one of the tasks of Clarke's book. Ecological theory provides a framework within which the sense of motion in music can be analysed as a perceptual phenomenon based in the perception of motion in an environment. This approach not only allows for a separation of perception from belief but demands it, supporting the characterisation of the sense of musical motion as a perceptual illusion by suggesting a form of perception that both operates independently from belief and appears active in music listening.

3.8 How the model of *Cognitive Categorisation* can help elucidate the sense, or illusion, of time in music.

The illusion of musical movement is based in large part on music's use of *temporality*– of references across time or of the generation of expectancy. This section develops the above view of illusion to elucidate this central feature of musical movement. The musicologist Philip Bohlman argues that music 'exists in the conditions of a *process.* Because a process is always in flux, it never achieves a fully objective status, it is constantly becoming something else.'[56] In a sense, the metaphor of movement and space can be understood as an analytically motivated response to this ontological condition. Sound arrives and passes by in an instant, so cannot be represented in a fixed form like a painting, sculpture or

[56] Bohlman, Philip V. 'Ontologies of Music' in *Rethinking Music*, 18.

building can be by photography. Our analytical object is not a literal representation but a metaphorical one.[57] The score displaces musical qualities with spatial qualities– sounds originating from relatively small media are depicted as 'high' while sounds originating from large media are depicted as 'low'; the progressivity of music becomes a linear directionality across the horizontal plane and durations for notes are symbolised.[58] Hence Jim Samson's comment that

> [w]hen contemporary commentators expose the contingency of music analysis, its dependence on models and metaphors drawn from other disciplines– indeed, its essential character as metaphor– they are in fact describing the age old condition of music theory.[59]

The sense in which the metaphor of movement and space is analytically motivated, then, is purely in the sense that the processual nature of music prohibits a literal representation of it.

Hanslick's renowned characterisation of music as 'Tönend Bewegte Formen'– 'tonally moving forms' or 'tonally animated forms'– describes the operation of an abstract object. But the motion of this object depends on a passage of time that is itself an abstraction: musical time is altogether distinct from time as measured by a clock. Susanne Langer makes a distinction between 'experiential time' and 'clock-time', arguing that music creates in the mind of the listener a 'virtual' temporality that has powerful effect as a means of expression.[60] Just as music can present a virtual space with which no actual space accords, Langer argues, it may present a virtual temporality that has little or no accordance with actual time. This passage usefully summarises the concepts of experienced time, clock time, and virtual time as they relate to movement:

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[57] For a discussion of alternatives to the conventional Western score see Luke Windsor's PhD thesis (1995).
[58] Zbikowski (2002) talks about the spatial metaphor for pitch relationships in *Conceptualising Music*, referring to it as "the conceptual metaphor PITCH RELATIONSHIPS ARE RELATIONSHIPS IN VERTICLE SPACE" and notes a number of alternative metaphors employed by peoples of non-Western cultures. Pp. 66-68.
[59] Samson, Jim. 'Analysis in Context' in *Rethinking Music,* 47.
[60] See Langer 1953.

> The elements of music are moving forms of sound; but in their motion nothing is removed. The realm in which tonal entities move is a realm of pure duration. Like its elements, however, this duration is not an actual phenomenon… but is something radically different from the time in which our public and practical life proceeds… Musical duration is an image of what might be termed "lived" or "experienced" time– the passage of life that we feel as expectations become "now," and "now" turns into unalterable fact. Such passage is measurable only in terms of sensibilities, tensions, and emotions; and it has not merely a different measure, but an altogether different structure from practical or scientific time.[61]

Music, according to Langer, engenders an order of 'virtual time' (ibid) that is to be separated from real time. Significantly, in the context of the current discussion, she argues that the 'semblance of this vital, experiential time is the primary illusion of music' (ibid.) The effect of music can be to create the illusion of an agent held in relation to time (and space); this is a perceptual illusion given that the listener does not believe there to be such an agent, and rests on the tensions, resolutions and expectancies that can be induced in the listener.

The study of music has had a lengthy collaboration with the study of time, for example Edmund Husserl's choice of a melodic motif to exemplify the phenomenology of time consciousness.[62] As mentioned above, Leonard Meyer also made an eminent contribution through his discussion of expectancies and their potential to provoke emotional response from the listener.[63] David Huron makes reference to Meyer when developing a survivalist theory of expectancies in music, supported by a plethora of psychological studies.[64]

Several studies have focused on rhythm as the principal engine to establish expectancies, but below I will consider a psychological model that may be

[61] Ibid p.109.
[62] Husserl 1991.
[63] Meyer 1956.
[64] Huron 2006

applied to various aspects of music just on the condition that they change in time. This can help account for how music can render a virtual world of objects that develop, disappear, interact, remain inert or change without conceptually acquainting the listener with properties of the object.

3.9 Cognitive Categorisation.

As we orientate to our surroundings we are putting things into categories in order to understand them. We recognise the lines, shapes and hues of objects as conceptual categories, and thus treat them as instantiations of the pertinent concept:

> [Our] recognition of … things reflects the categories through which we structure our thought: to recognise a book is to identify it as a member of the category *book*; to recognise a tree is to identify it as a member of the category *tree.* Categorization occurs in all sensory modalities and throughout the range of mental activities: we categorize smells and sounds, thoughts and emotions, skin sensations and physical movement. Categories are…basic to thought. (Zbikowski 2002: 13)

In his book, *Conceptualising Music* (2002), Lawrence Zbikowski suggests framing music analysis in cognitive models, one of the models considered being *cognitive categorisation*. While cognitive categorisation is well established in cognitive science as a principle to account for basic aspects of perception and thought, Zbikowski was the first to apply the particulars of the model to music experience.

An implication of this approach is that the way tonal music is designed and experienced is related to the way cognition operates, in a way distinguishable from that of holding in some relation to belief. This echoes the view advanced in this essay, that certain music experience should be understood at bottom as a

psycho-acoustic phenomenon; as put by Arnold Schoenberg in the early 20th Century, music abides not just by the laws of sound, but by the laws of the mind:

> Tonality's origin is found—and rightly so—in the laws of sound. But there are other laws that music obeys, apart from these and the laws that result from the combination of time and sound: namely, those governing the working of our minds. This latter forces us to find a particular kind of layout for those elements that make for cohesion—and to make them come to the fore, often enough and with enough plasticity—so that in the small amount of time granted us by the flow of the events, we can recognize the [musical] figures, grasp the way they hang together, and comprehend their meaning.[65]

I argue in the next chapter that Schoenberg ultimately has an abstract view of listener experience. However, the point that music is designed by tacit reference to the workings of the mind is a powerful one, given that the established tonal, metrical and even timbral systems have been developed in such a way as to complement and excite the perceptual machinery of human beings. There is nothing specifically musical about categorization: it is the most basic of perceptual abilities, but its basic functionality in everyday life is reflected by its basic role in music perception.

The musical 'cohesion' of which Schoenberg speaks is brought about through the establishment of categories throughout the range of discernible musical structures (rhythmic, melodic, harmonic, motivic (a combination of melody, rhythm and harmony.)) The notion of 'category' to which Zbikowski refers supplements the classical view, tracing back to Aristotle, where members of a category are determined by considering objects alongside a set of jointly necessary and sufficient conditions. On the classical view, categories were given as stable and universal entities existing in the world, apart from any act of perception or cognition. However, this view was challenged by Wittgenstein, who gave the example of 'game' as a category that cannot be defined in terms of

[65] Schoenberg 1926.

necessary and sufficient conditions.[66] Following work in cognitive theory in the 1970s and 1980s, notably by Eleanor Rosch, a conception of category emerged as an aspect of knowledge rather than an aspect of things that could be known (Zbikowski 2002: 30).[67]

Within recent cognitive science, an alternative conception of category developed partly to better represent the way we create and use categories and partly to better understand the way members of a category relate. When we put things under categories, we do not tend to employ the lowest level or highest level of a taxonomy; instead we tend to favour the mid-level. I would more likely call that thing walking around my living room *a cat* rather than *a vertebrate* or *a shorthaired domestic cat;* the category *cat* is an example of 'basic level' categorisation, where the category has a small enough number of members to be informative but can also be used with efficiency by limiting the number of categorisations a person must make (there are more contrasting categories at the level of *shorthaired domestic cat* than there are at the level of *cat*.). This 'level is psychologically basic: at this level, people name things more readily, languages have simpler names, categories have greater cultural significance, things are remembered more readily, and things are perceived holistically' (Zbikowski 2002: 32.) The basic level also has several distinguishing features: for example this is the highest level at which one mental image can represent the category, implying a commonality in shape and form of its members; it is also the highest level at which an individual will interact with all members in a similar way.

If you were to draw to mind an image of a basic-level category such as *bird* what you would likely picture is a *prototype* of that category. Eleanor Rosch and Carolyn Mervis have argued that categories have at their centre an example that seems to capture the most prevalent features of the category; for the category *bird,* the prototypical members are robins or wrens.[68] When an individual is compared to this prototype it can be said to exhibit *prototype effects*, arising from the values shared between the prototype and the individual being compared. In

[66] Wittgenstein 1953 31– 32.
[67] Rosch 1978. For a summary see Rosch, 1994.
[68] Rosch and Mervis, 1975.

this sense, membership of a category is *graded*. How typical a member of a category is will depend on how many *values* it shares with the prototype: 'If the values of the prototype for *bird* were *small*, *brown*, *chirps*, and *flies*, then a wren would be most typical of the category, a male cardinal (*small*, *red*, *sings*, *flies*) would be somewhat less typical, and a chicken (*large*, *white*, *clucks*, *runs*) would be least typical.' (Zbikowski 2002: 42) Zbikowski provides the diagram below of the basic category *bird*, with labels for *attributes, values* and *individuals.*

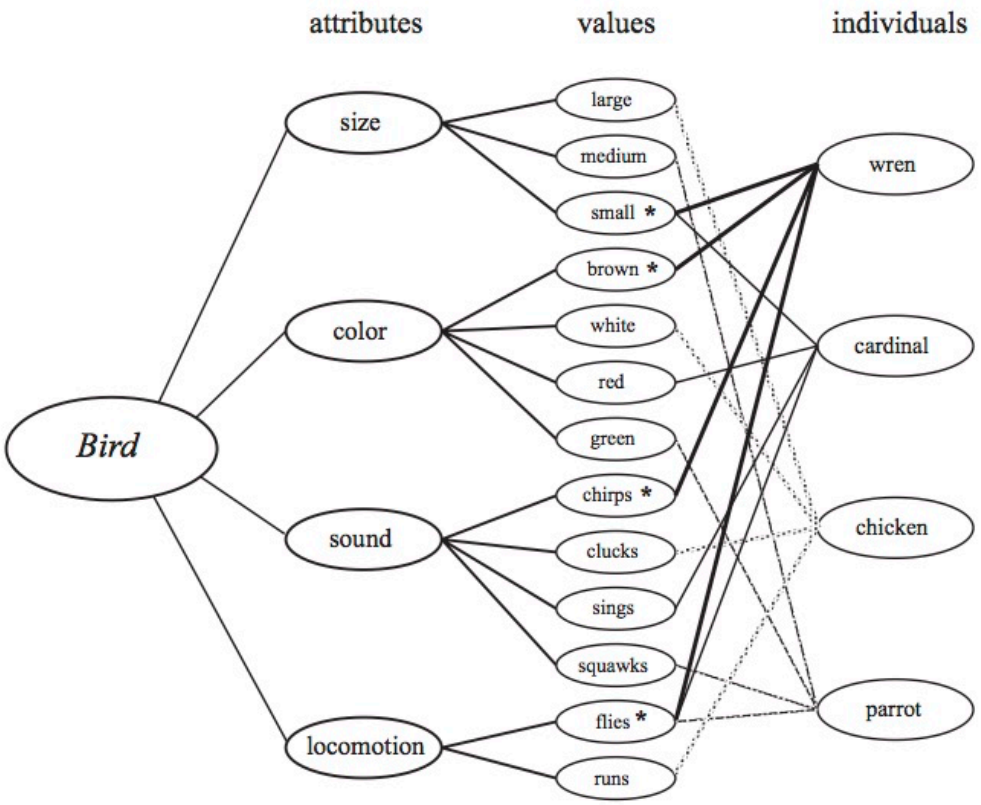

Fig. 3.2

'A partial frame for the category *bird* (asterisks indicate the values of the prototype that are stored in memory)' (ibid p.42)

While the prototype may be the member with the most statistically prevalent features of the category (most European birds do fly, are small and are darker in colour), it is also determined in part by global conceptual models held in knowledge. In effect this means that attributes are weighted differently: we may give more weight to the attribute *locomotion* than the attribute *sound*. These

conceptual models are wrought through extensive experience with category members and the pertinent repeated development of local models, along with broader culturally derived knowledge.

The significance of this research for music-study is that many of the most immediately salient aesthetic features of a musical work are perceived at this basic level, the melodic *motive* (or *motif*) being a prime example. Zbikowski gives an in depth motivic analysis of the introduction to Beethoven's Fifth Symphony, the diagram below showing the 'category structure for the category motive forms from the opening of Beethoven's Fifth Symphony, mm.1–21.'

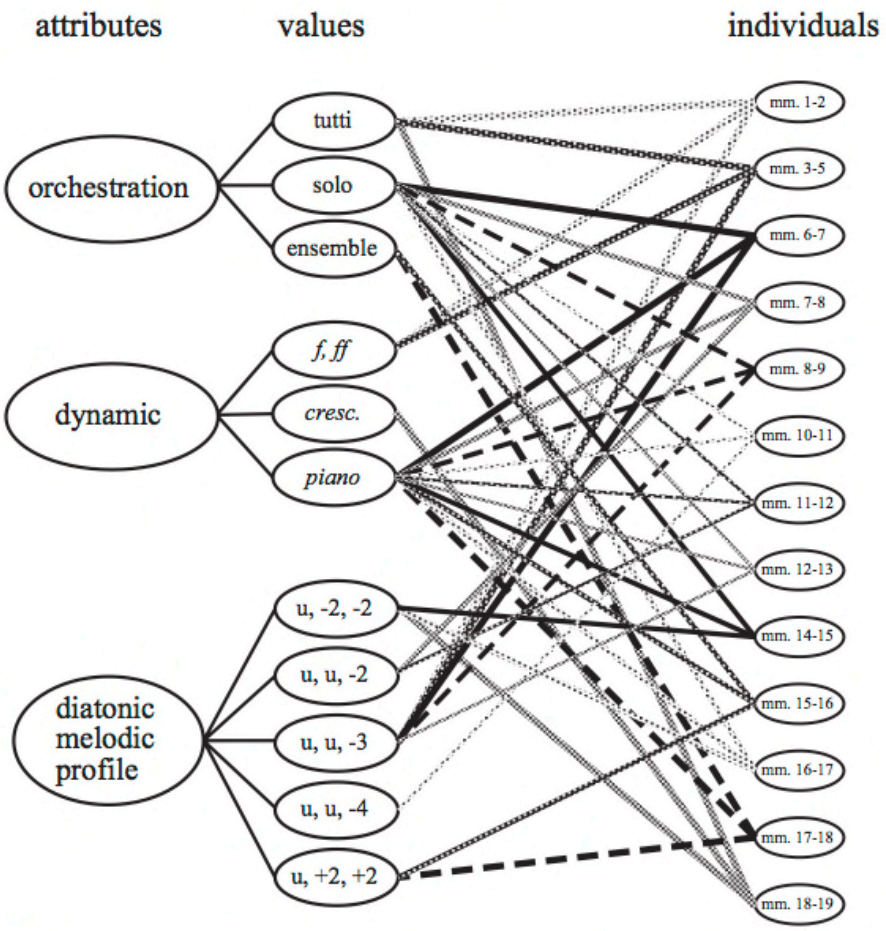

Fig. 3.3

u= unison; -2= descending second etc.

Statistically, the typical member of this category will be played solo, *piano* with an intervallic profile of unison, unison and a descending 3rd. But this does not

reflect the typical motive form that would be brought to mind when considering the opening motive of Beethoven's Fifth Symphony, which would likely be *fortissimo* and *tutti*. The divergence between the statistical prototype and the prototypical mental image can be accounted for using global models, such as the psychological significance of the temporal order and the according weight given to the opening bars. We also have a global model for Western Classical music concerning the statement and development of themes, such that previous experience of classical music from this period has informed us that composers will tend to follow a clearly stated motif, given at some privileged point in the piece (such as the beginning of a section), with a period of development where the heard themes should be treated as transient.

Categorisation can help us understand how events in musical time are established, segmented and developed. Zbikowski's analysis of motive in Beethoven's Fifth demonstrates how a complex of melodic lines can relate to one another in a way that is not dictated by their temporal order but that affects their *appearance* in time. To say that a motive can have grades of 'prototype effect' is to say that a motive can be recognised as various grades of a previously stated motive, and as such refer back to an earlier moment. The first subject of the exposition is felt as a flow of fading and reinforcing impressions of a theme, perceived with the same psychological processes at play in typical perceptual function. There are empirically grounded psychological reasons for why a motivic structure of such complexity can be perceived– its form (duration, number of elements) being recognisable as a basic-level category– and for how an experience stretching over around 1 and a half minutes can be unified and tied to a single form expressed in around 7 seconds.

> Because categorization is an active response to the environment, it always has a temporal dimension: a comparative categorization of birds, for instance, demands that we evaluate each in turn. With music the temporal aspect is slightly more prominent, since musical entities are thoroughly ephemeral: not only must we evaluate each musical entity in turn, but

> also this evaluation is practically the only evidence that the entities ever existed at all. (p.51)

One obvious issue with this model in terms of how it complements a phenomenal view is whether it can be treated as a model of a distinctly *nonconceptual* aspect of psychology. As mentioned above, theory on prototypes has influenced the debate on how concepts are structured; correlatively, cognitive categorisation seems to explain the process by which concepts are structured in experience. However, the process by which a concept is structured can be distinguished from a concept. As Zbikowski admits, cognitive categorisation explicates syntax rather than semantics– the ordering of meaning rather than meaning itself. How things come to have meaning is a complex issue, as mentioned above, but it can be said that syntax alone will not furnish categories with content– understood as an abstract object like a property or type.

It could be argued that a cognitive category analysis of the opening of Beethoven's 5th Symphony does suggest that experience of such motifs is conceptual: a mental representation of the content 'opening melodic motif in Beethoven's 5th'. But this interpretation fails to capture the experience of the passage. It is not in taking up a propositional attitude towards the content 'opening melodic motif in Beethoven's 5th' that the experience consists; as the analysis suggests, the experience of the opening of Beethoven's fifth is about the cognitive relations to a fluid prototype, rather than about the prototype itself. Zbikowski notes this issue, accounting for the lack of content with a mystical view of musical concepts: 'Musical concepts are of another world, another order, because they extend into a domain that is beyond words' (p.326).

But on a phenomenal view such mysticism is unnecessary. Cognitive categorisation alone reveals a significant means by which the mind responds to music that helps explicate musical movement without reference to concepts. Zbikowski exemplified cognitive categorisation with motivic analyses of numerous Western art pieces but, as he puts it, while this 'is a good example of a musical category, categories can be much more various and structured around

whatever set of musical relationships seems best to account for what is salient about a particular repertoire' (p.59.) The principle themes of a cognitive categorisation analysis are establishment of a prototype– which is characterised by a set of values– and the instantiation of subsequent forms that have manifest equivalencies with the prototype. It seems that most if not all elements of music structure would be amenable to such a model. It is easy to see how the establishment and development of a category is fundamental to rhythm, phrasing, harmony, melody, perhaps even timbre (consider the dynamic and structured use of timbre in computer music). Indeed, basic to formal approaches generally, set-theory in particular, is that relations exist between music's component parts (Cook 1987; 181), however it is unclear what about the relations in themselves– as they are presented in formal analysis– matters.[69] This is a way of closing the gap between formal representation and experience: by placing formal relations within a cognitive framework and thus viewing them as states that relate to experience generally.

Viewing categorisation as both a fundamental aspect of music perception and a fundamental aspect of perception generally helps indicate how the complexity of music structure is effective in inducing activity of a nonconceptual process. A profound phenomenological response is afforded in this explanation, *even if the response lacks content*. The constellation of categories manifest within music is a prime indication of how rich experience is possible without concepts.

Another line of argument for a phenomenal view that cognitive categorisation as applied to music perception helps uncover pertains to the fineness of grain of perception and the re-identification condition of concepts mentioned above on the section on concepts. Insofar as the above analysis approaches cognitive fidelity to the music listener, we are able to discriminate categories within music at a finer grain than our conceptual capacities allow. It seems that, similar to the example of shades of red given above, I would be able to discriminate each of the melodic motives in the opening of Beethoven's Fifth as the concept ' opening melodic motive of Beethoven's Fifth', but without musicological training I would

[69] As Cook 1990 argues; see chapter 3.

fail to re-identify, say 'melodic motive occurring in mm.6-7'. While a musicologically untrained listener would be apt to experience the passage as music, she would not therefore have learnt each instance of a motif as just that particular instance of a motif– as a concept.

The phenomenal view argues that musical experience is characterised by nonconceptual discrimination. Indeed, I call on this ability to differentiate between tones. I need not have the concept of the pitch classes A and B in order to make a distinction between the notes A and B. Even if told the names of each tone when hearing them, it is not assured that I would be able to invoke the same concepts when encountering them at another time; to do so I would need perfect pitch or extensive ear training, neither of which is necessary for me to merely distinguish between tones.

Two things should be clearly separated when discussing this ability to discriminate: having the ability to discriminate and having the *concept* of discrimination. While a housefly has the ability to discriminate– between solid surfaces and open space, or between food and non-food- it makes no sense to suggest that a housefly *conceives of* discrimination. Humans can conceive of discrimination, give it a term and use it in a thesis, but humans also use the *ability* to discriminate everyday in highly complex ways.

It may be argued that using this (nonconceptual) ability to discriminate should not in itself be phenomenologically salient. Certainly, at a local level, it seems that the experience of the difference between the notes A and B is not likely to be greatly different than that of A and C. But there is some difference– there must be in order to afford the formation of a pitch-class system of categorisation. This difference becomes more salient as the structural element becomes more complex. Consider intervals: a major second will sound clearly different to a minor third; a major second will also sound clearly different to a diminished fifth; *but the difference between the major second and minor third is itself experienced differently to the difference between the major second and the diminished fifth*. So, while two distinct intervals are phenomenologically

discriminable, two distinct *sets* of distinct intervals are also phenomenologically discriminable. These layers of difference can accumulate so that a heteronomous, complex experience is afforded without any need for content beyond that of difference. Consider that a major third can be heard as not only different to each other interval, but also as *differently different* to each other interval, in the sense that a difference between a third and a fourth is different to a difference between a third and a fifth, and so on. Consider also that this structure of difference pertaining to the major third and all those that are compared to it will itself be different to an analogous structure of difference pertaining to a perfect fourth, and that both of these structures of difference will be different to that of a major sixth and so on. And this is only regarding two note intervals; three or four note chords would of course afford far more differential complexity.

Discrimination does not need conceptual content to have complexity, since it is not homogeneous: a distinct interval is not just heard as distinct from any other– it is heard as being distinct in its *relation* to any other, so that each interval is not simply isolated as a thing as if I were to point to a particular square in a perfect grid. The distinct interval holds particular phenomenological values in its particular relations with other intervals. The human auditory system can be ascribed complex structures of perception without any recourse to representation or intentional engagement. This brief attempt to conceptualise rudimentary tonal elements should show how unlikely it is that music perception is an essentially conceptual practice, and that a listener can experience vast array of heterogeneous structure solely in virtue of the basic perceptual capacity of discrimination.

3.10 Conclusion and Summary.

Before summarising the above, it is necessary to address the issue of how the concept of 'perceptual illusion' wrought above squares with the concept of 'metaphor' wrought in chapter 1. The previous chapter argued that musical movement is metaphorical, but in a special sense that denotes a mapping across

domains from nonconceptual embodied experience. This chapter argues that musical movement is a perceptual illusion, in the sense that the experience of musical movement conflicts with the belief that the music does not move. It should be fairly simple, I argue, to subsume the notion of metaphorical movement given in chapter 1 under the notion of perceptual illusion given above. Insofar as the metaphorical image schemata concerned are held responsible for the *experience* of movement– as opposed to the construction of utterances that contain spatial metaphors like 'I'm feeling down'– it can be said that they are responsible for an experience of musical movement that conflicts with the belief that the music does not move.

While it is fairly simple to subsume 'metaphor' under 'perceptual illusion' in their present senses, it is less clear that the reverse is true. In other words, it is not clear that 'metaphor' can be conflated with 'perceptual illusion'. Clarke does not identify the ecological perception of musical movement as metaphorical, and it is necessary to make a clear theoretical distinction between ecological perception and image schemata. However, the sense of metaphor employed here is probably bespoke in that it prescribes a nonconceptual, embodied source. The application and value of broader senses of metaphor have been critiqued above and in chapter 1, leaving the bespoke sense as the only one pertinent to musical movement. As such, while a theoretical distinction is necessary between ecological perception and image schemata, under the framework so far developed both can be subsumed under 'metaphor' since ecological perception can be understood as a linking– or mapping– from a nonconceptual source of the experience of movement– the perceiver's nonrepresentational auditory perceptual system– to music. There is an implied difference in the mechanism of the mapping, and in the nature of the source domain, but insofar as metaphor is understood as a mapping from embodied experience to another domain, ecological perception seems to be metaphorical. Any qualms with the word 'mapping' when referring to ecological perception may be a terminological issue as the word seems to just mean 'application' (indeed, the word 'mapping' itself implies a spatial metaphor.)

Without recourse to the bespoke sense of metaphor, it could be argued that the motion Clarke ascribes is not too far from the motion Scruton ascribes. Clarke tends to use the word 'virtual' while Scruton prefers 'imaginary', although Scruton does also use 'virtual' (1997: 36.) Compare, for example, Scruton's notion of virtual 'subjects'– 'musical individuals, journeying through the tonal space which is their element'– (Scruton 1997: 63)– and Clarke's notion of virtual 'agents'– 'the cello and violin parts specify very different kinds of motion (one assertive and energetic, the other receptive and accommodating), and for this reason, as well as for reasons of register and timbre, they specify distinct 'agents' in motion relative to one another– two separate individuals.' While both proceed from distinct fields of enquiry they have I think identified the same phenomenon, and it is not immediately clear why Scruton's musical movement befits 'metaphor' while Clarke's befits 'literal,' but I will let the issue rest here.

In sum, the perceptual effects tied to the operation of metaphorical image schemata in music can be reconciled with the notion of perceptual illusion wrought above as a conflict between some aspect of perceptual experience and belief. Metaphorical image schemata such as those concerning musical forces can account for an illusory sense of movement just because they suggest the engagement of aspects of our psychology that allow us to perceive movement in tandem with a conceptual capacity that represents a lack of movement. A primary aim of this thesis is to draw together researches in different fields so as to argue and dispute claims about fundamental aspects of music, and as such psychological models will be brought under the phenomenal view just if it can be argued that they explicate musical movement as an effect of embodied and/or nonconceptual psychology.

This chapter has augmented the case for a phenomenal view of musical movement through investigation of the relation between musical movement and real or veridical movement. After a discussion of the background into psychological theories and the literature on musical movement, three approaches to the issue of how musical movement relates to real or veridical movement were developed: (i) *abstract,* (ii) *humanist,* (iii) *phenomenal.* (i) is

associated with the specifically musical and irreducible, (ii) with a rejection of the idea that musical movement is paradoxical or metaphorical and (iii) with the notion that musical movement is a perceptual illusion.

The phenomenal view offered here opposes an abstract view, but can be aligned with humanism in certain respects: both approaches aim to undermine the boundary between music and human-life with the common argument that music and life are interrelated. The important difference between the two views reflects the distinction I have been developing between the conceptual and the nonconceptual. Humanists such as Hamilton and Scruton conceive of the link between music and life as characterized by the listener's intellectual engagement in her environment and its representation in sound, while the view offered here makes links to non-musical human life by conceiving musical movement as an exercise of a listener's nonconceptual psychological abilities.

Perceptual illusions were characterised as experiences that conflict with what a subject knows or believes to be the case, and contrasted with cognitive illusions, consisting in the formation of false beliefs. Understanding musical movement as a perceptual illusion allows it to be elucidated in non-musical terms, through examples of non-musical perceptual phenomena such as the Muller-Lyer illusion, through reference to philosophy of mind (chapter 1) and through reference to psychological models such as ecological theory and cognitive categorisation. Ecological theory was presented as a model that explicates musical movement as a perceptual illusion. The utility of this model of nonconceptual perception strengthens the argument that musical movement is nonconceptual and helps illuminate the ways in which belief and experience can conflict in music perception.

Time was identified as a critical research topic when attempting an account of musical movement. Using terminology and argumentation from Susanne Langer, music's ability to affect a sense of time through the development of tension and expectancies was given as an example of perceptual illusion. Zbikowski's use of the psychological model of cognitive categorisation to analyse music perception

presents an efficacious means of explicating the musical sense of time that conflicts with our real or veridical sense of time. Cognitive categorisation further strengthens a phenomenal view given that it explicates aspects of musical movement– the sense of temporality that underpins musical movement– as the exercise of nonconceptual psychological abilities that conflict with a listener's beliefs. The ability to categorise was linked with the ability to discriminate, with the literature on the fineness of grain of nonconceptual experience providing instructive background. It was argued that a listener has the potential to experience highly complex hierarchical structure with only the ability to discriminate.

Chapter 4

Conceptions of Music Experience: Internalist versus Externalist.

This chapter gives a fresh approach to the phenomenal/abstract distinction made in the previous chapters, in order to further clarify and expand on what it means to say that musical movement should be understood under a *phenomenal* rather than an *abstract* conception; it is structured broadly in line with the following aims:

1. to connect phenomenal/abstract with a broader distinction, emerging from the aesthetics literature, that allows for further argumentation for a phenomenal view.
2. to discuss a key consequence of a psycho-acoustic conception– that the musically aesthetic is determined by immediately perceivable sound.
3. to defend against the charge that this consequence commits a phenomenal view to an untenable *formalist* conception of the musically aesthetic.

The following will tend to refer to the *musically aesthetic* generally rather than *musical movement* in particular. This reflects the aim to situate the phenomenal view in a broader debate, the research cited below rarely dealing specifically with musical movement but rather with the *musically aesthetic* or, even more generally, the *aesthetic* (although I resist making any novel claims about the

aesthetic *per se*). Musical movement is a central aesthetic feature of music, and as such a phenomenal view of musical movement, though perhaps does not *depend on*, is certainly *supported by* a coherent phenomenal view of the musically aesthetic.

Conversely, the centrality of musical movement renders it a robust point from which to generalise over the aesthetic. That musical movement is a psycho-acoustic phenomenon, understood on a phenomenal conception, supports the view that the musically aesthetic is also as such. Some might call this an *inductive* argument since it is clear that while the premises– musical movement is psycho-acoustic and musical movement is a central aspect of the musically aesthetic– supports the conclusion– that the musically aesthetic is psycho-acoustic– it is nonetheless possible for the premises to be true and the conclusion false– if some other aspect of the aesthetic cannot be understood as psycho-acoustic. The below provides argumentation that circumscribes the musically aesthetic in such a way that it can be defined in terms of psycho-acoustic properties. The overarching aim of this chapter, then, is to argue a phenomenal view of the musically aesthetic, thus strengthening the phenomenal argument for musical movement along with using the above work on musical movement to support the more general argument for the musically aesthetic.

4.1 Introductory Summary.

The first section examines the claim that the musically aesthetic can be understood without presupposing it– a primary claim of the phenomenal view– by identifying precedents in the aesthetics literature and by rebutting the argument from Andy Hamilton that circular definitions can be anodyne.

The second section introduces a new distinction between *internalist* and *externalist* that can be aligned with the abstract/phenomenal distinction made over the previous chapters, and considers an important debate between

Beardsley and Dickie in aesthetics during the mid-20th century that provides background and elucidation.

The following section criticises an example of a strong externalist view of music, belonging to Benjamin Boretz (1970), that identifies all aesthetic features of music with their representations in language or music-analytics. This critique exposes a particular model, pertaining to a vehicle/content distinction, that is central to externalist views but fatally flawed.

A vehicle/content distinction is flawed, I argue, because it cannot accommodate the truth that any aesthetic experience of music is determined by how the music sounds– understood as its immediately perceivable sonic properties. This argument is developed by invoking the concept of *supervenience,* which characterises dependence in one direction: any change in the way a musical work sounds will occasion a corresponding change in its aesthetic features, but any change in aesthetic features is not necessarily brought about through change in the way the musical work sounds.

It is a consequence of the supervenience argument that a phenomenal view is committed to a kind of *formalism*, insofar as formalist views prescribe that the musically aesthetic is to be understood in terms of immediately perceivable sonic properties. However, the supervenience argument commits the phenomenal view to a weak version of formalism that acknowledges the role of listener attitude and context.

Further delineation of the role of form in music experience is given where *acousmatic listening* is considered as a broader conception of the musically aesthetic whose circumscription extends further than the musicological concept of *tones*– taken as the most basic feature on a formalist view. The acousmatic then sets the boundaries of the musically aesthetic in accordance with the boundaries of the *acoustic*. I argue the acousmatic thesis, distinguish it from the Kantian notion of the disinterested attitude and further argue, contrary to John Cage, that the acousmatic does support judgements about aesthetic value.

The penultimate section argues that acousmatic listening can be understood as dependent on perception rather than as abstract, contrary to Hamilton and Scruton. This argument questions the tendency to render intrinsic features as abstract objects rather than psychological processes or events. It is argued that the psycho-acoustic conception of music is particularly instructive given that it explains two apparently conflicting but intuitively correct claims: firstly that the musically aesthetic can be understood in a way that makes no prior reference to the musically aesthetic, and secondly that that the musically aesthetic is experienced as *intrinsic*.

The final section considers an amalgam view where features from both internalist and externalist conceptions are combined to account for the musically aesthetic. I argue that this compromising position is not feasible. However, the rejection of extrinsic features of music does invite questions about the explanandum and how the 'musically aesthetic' should be distinguished from 'musical experience'.

4.2 Objectives of conceptions of aesthetic experience.

A strength of the phenomenal view, I have argued, is that a central aspect of the musically aesthetic is accounted for in a way that does not presuppose either music or the aesthetic; this is achieved by endorsing a psycho-acoustic conception of musical movement. This section argues that such a non-circular definition of the aesthetic is necessary and explanatory, against the view of Andy Hamilton (2007.)

Two objectives can be distinguished that are, I suggest, priorities for conceptions of the musically aesthetic. Jerrold Levinson intimates the first objective when he gives several desiderata that, he claims, 'must be satisfied for a characterisation of aesthetic pleasure to be accounted a success' (1996: 3), one of which being that 'aesthetic pleasure [is construed] as in some fashion distinct, on the one

hand, from purely sensory or sensual pleasures, and on the other hand, from purely cognitive or intellectual ones' (ibid.) Insofar as aesthetic pleasure is taken to entail aesthetic experience, Levinson here indicates a concern with how aesthetic experiences can be distinguished from non-aesthetic experiences that are similar in certain ways. Gary Iseminger suggests a second objective by demanding an account is given 'in a way that appeals neither to any prior idea of the aesthetic nor to the concept of art' (2003: 99) even if he accepts that any theory must account for the close connection between art and the aesthetic. These objectives are priorities for conceptions of aesthetic experience, but also can be cast as more general conditions for theories:

(A) that the explanandum is distinguished as the property or thing that it is
(B) that the explanation is non-circular.

(A) should be granted as self-evident, I think, although there is some contention regarding (B) as related to aesthetic experience, which is considered below. It should be noted that (A) here may initially seem significantly different to Levinson's desideratum on aesthetic experience– which made specific mention of 'sensory', 'sensual', 'cognitive' and 'intellectual' pleasures. Although on closer inspection, Levinson is really distinguishing the musically aesthetic from all that is 'pleasurable' coupled with either sensory or cognitive: in other words, all that is pleasurable experience.[70]

It has been questioned, however, whether a non-circular definition of the aesthetic is feasible or even desirable, given that there are many instances of circularity in language that do not subtract from the utility of component terms. Andy Hamilton gives the example of 'monarch' and 'subject': '[t]he dictionary defines "monarch" as "sole or absolute ruler of a state"; when one asks what the state consists of, or who monarchs rule over, the answer must refer to subjects, while "subject" is defined as one ruled by a monarch or other absolute authority' (Hamilton 2007: 59.) Analytic conceptual holisms such as these are seemingly

[70] Nb I prefer the notion of aesthetic 'value' to 'pleasure' below since the former is broader.

anodyne, and it is arguable that the relation between art and the aesthetic exhibits a similarly innocuous circularity.

To understand whether this circularity can be excused in a theory of the aesthetic it is worth considering an example. A simple circular definition of the aesthetic: art is the production of the aesthetic, where the aesthetic is what is produced by art. It is clear that such a definition has no explanatory currency due to the mutual presupposition of 'art' and 'aesthetic' in the definition. However, it could be argued that Hamilton's example is more instructive given that the definition of 'monarch' does not in fact contain the term 'subject', but the circle is completed through a further step, by the meaning of the word 'state'. But this larger circle then begs the question since the circularity evident in the definition of 'monarch' is in fact a microcosm of language: all dictionary entries make reference to one another in definition, implying a closed system. The examples I gave of art and aesthetic seem far less useful definitions than those of 'monarch' and 'subject' just because they make a smaller circle. Human language is vast and complex, and were it not for its place in this vast circle the definition of 'monarch' would not have any utility whatsoever. The presupposition in the above definition of 'art' and 'aesthetic' ensures that neither has a place in the vast closed system of language.

It is plausible that 'art' and 'aesthetic' could be interdependent, in the sense that the definition of each term could make reference to the other, without ensuing circularity. For example, any description of the aesthetic may be dependent on art while also entailing a mental state, giving a definition such as: 'the aesthetic attaches to experiences that entail taking attitude *x* towards artworks' and 'artworks are objects that engender aesthetic experiences when perceived under attitude *x.*' In such definitions, the meaning of 'attitude *x*' may allow the definitions to refer to a far larger set of terms, affording definition in terms of mental states, psychology, perception, or broader cultural issues. There is clearly value in situating 'aesthetic' into a broader system and ultimately this can be put as the question of whether 'aesthetic' can be described in a way that does not presuppose it.

Certain aesthetic theories have fallen into disrepute for too thinly veiled circularity, for example George Dickie's formulation of the institutional theory of art and the attempt to define art in terms of the 'artworld'.[71] He drew the following criticism from Levinson:

> A circular definition, however segmented, no more clarifies anything than it informs or instructs– one simply cannot elucidate the content of a concept by using and presupposing it in the course of the elucidation. Philosophical definitions can do better than that. (1987: 145)

If 'aesthetic' and 'art' adopt positions within a conceptual holism, an immediate concern pertains to the boundaries of such a holism– how far the circle extends outwards from these terms. To concede that such terms cannot be understood outside of a circular definition is to concede that they are irreducible, perhaps permitting them as brute facts in theories; but is a claim as substantial as aesthetics itself.

Two overarching motivations for this chapter and indeed the thesis more generally, then, are (1) to distinguish the musically aesthetic from other experiences in such a way that (2) makes no prior reference to art or the aesthetic while nonetheless accounting for the close relation of art and the aesthetic. An effective definition of the *musically aesthetic*, it has been argued, depends on clear distinction in terms of non-aesthetic ideas. The view offered here attempts to satisfy the aforementioned desiderata by defining music experience in contrast with the conceptual, as psychological process. Rendering the aesthetic in terms of the psychological is to render the aesthetic in non-aesthetic terms, and it is by bridging this gap that artworks can be understood more broadly as a part of psychology, culture and the physical world.

[71] See Dickie 1974 and 1984.

4.3 A debate on aesthetic experience: Internalism and Externalism.

James Shelley uses the terms *internalist* and *externalist* to denote two contrasting conceptions of *aesthetic experience.* Internalist views appeal to features internal to experience– typically phenomenological features– while externalist views appeal to features external to experience– typically features of the aesthetic object (Shelley 2015).[72] *Phenomenal* and *abstract* can be subsumed under *internalist* and *externalist*, I argue below, the latter terms helping expand on *phenomenal/abstract* by giving more general characterisations that are rooted in conceptions of *aesthetic experience* rather than *musical movement.*

Insofar as the internalist/externalist distinction can be used to divide conceptions of the musically aesthetic, and the phenomenal/abstract distinction can be similarly used to divide conceptions of the musically aesthetic (rather than musical movement in particular), the former will be a broader distinction under which the latter can be subsumed; it can thus be said that the latter implies the former. It is coherent to be an internalist who does not recognise the role the phenomenal view gives to both psychology and nonconceptual perception (Dewey and early Beardsley provide examples), just as it is coherent to be an externalist who rejects the claim, associated with an abstract view, that musical movement is specifically musical (humanism is an example of such an externalist view.) As such, it is possible to subscribe to either internalism or externalism about aesthetic experience while rejecting the respective phenomenal or abstract views, but the reverse is not true.

A phenomenal view implies internalism since the former is committed to the features of the latter, key amongst which are (a) aesthetic features are attributed to the experience rather than the object that is being experienced and (b) music

[72] The distinction has its origins within philosophy of mind. '*Externalism* with regard to mental content says that in order to have certain types of intentional mental states (e.g. beliefs), it is necessary to be related to the environment in the right way. *Internalism* (or *individualism*) denies this, and it affirms that having those intentional mental states depends solely on our intrinsic properties' Lau and Deutsch (2016).

is assumed to be aesthetically evaluable through introspection alone, where 'aesthetically evaluating' music entails ascribing aesthetic value to it. I will argue for both (a) and (b), but a full argument for (b) is withheld until chapter 5 and the discussion of aesthetic value. In order to argue (a), what is meant by 'aesthetic features' needs to be established, and the extent to which 'experience' is elucidated by the models of nonconceptual perception that explicate musical movement on a phenomenal view needs clarifying.

Examples of 'aesthetic features' taken from the literature are given in the following section and should provide some elucidation, but I will go on to argue for a *prima facie* narrow formalistic or intrinsic notion of 'musically aesthetic', the primary characterisation of which generally relies on terminology developed in conventional Western musicology– for example: *key, tone, scale-degree, sonata form, rhythm, harmony* etc.– although there are formal or intrinsic musical elements central to western music but not captured by the conventional Western musicological paradigm– such as the use of sound production (timbre) in recorded music and computer music– as well as alternative formulations of the same elements– such as those that make use of psychological models.[73] Another way to characterise this notion of the musically aesthetic is as all those features that cannot be described as contextual, as socio-politico-cultural commentary or as in some other sense extra-musical. I assume that *musical movement* counts as an aesthetic feature or is constituted by aesthetic features.

Given that the feature (a) of an internalist view was characterised above as 'aesthetic features are attributed to the experience rather than the object that is being experienced', and that the phenomenal view explicates musical movement in terms of nonconceptual perception, the relation between 'experience' and 'nonconceptual perception' needs to be considered briefly before subsuming the phenomenal view under internalism. 'Nonconceptual perception' has been used with the caveat that it entails 'experience', in the sense that any sub-personal perceptual/cognitive functions are excluded. It was made clear at the beginning

[73] 'Conventional Western musicology' here includes the sub-disciplines of music theory, music analysis and Schenkerian analysis. 'Conventional Western musicology' explicates the tonal system, or the elements of music (Scruton 1997: 1–79; Hamilton 2007: 40–65.)

of chapter 1 that, in attending to musical movement, my remit is strictly the experiential, and any psychological models appealed to so far have demonstrated the role nonconceptual perception has in musical experience. It might nonetheless be maintained that there is a question of whether claiming 'musical movement can be understood in terms of nonconceptual psychology' can be equated with 'musical movement can be understood in terms of aesthetic experience.' The view argued here is that the equivalence can be made, since insofar as musical movement is an aesthetic feature, and nonconceptual perception is experiential, casting musical movement as an effect of nonconceptual perception renders musical movement an aesthetic feature that is attributable to experience.

It can also be said that an abstract conception implies an externalist conception insofar as the former is committed to the features of the latter, which include (i) characterisation in terms of abstract objects that are independent of perception and (ii) aesthetic value depends on *correct* perception of features of the object. Again, concerns of value will be mainly dealt with in the next chapter, but the below explores in detail how externalist views seek to explain experiences of the aesthetic with a model of *epistemic acquaintance* with the object: the subject comes to know something about the object, and this thing the subject knows can be true or false and, relatedly, can be a correct or incorrect appreciation. This chapter helps develop this sense of epistemic acquaintance that is central to an externalist, and therefore abstract, view. A main point of departure between abstract and externalist is that the former, as argued in chapter 2 and 3, presents the musically aesthetic as *specifically musical,* while the latter does not make such a commitment.

The utility of the terms 'internalist/externalist' in understanding 'phenomenal/abstract,' then, are that they distinguish two broader and related views. It is necessary to make an argument for internalism when arguing a phenomenal view, thus entailing an argument against externalism. Alongside these more technical reasons for introducing these terms is the pragmatic concern of acknowledging this chapter's difference in focus in both sub-

discipline and explanandum, given that the following uses writing in general aesthetics to frame a theory on the experience of musical aesthetics (while previous chapters used musical aesthetics or musicology to frame a theory on the phenomenon of musical movement.)

4.4 The Internalist/Externalist Debate in the 20th Century.

The consensus in aesthetics moved from internalism to externalism through the course of the 20th Century.[74] Tracking the debate from Dewey to Beardsley and through the various subsequent exchanges between Beardsley and Dickie provides both detailed characterisation of the terms internalist and externalist and a brief background. In the early 20th Century John Dewey argued an internalist viewpoint by suggesting that the aesthetic appreciation of an artwork be related with what he terms *an* experience. *An* experience is held apart from other experiences by an individualising quality; it has structure, complexity, and builds to consummation; it is unified in such a way that none of its aspects can be granted independence from any other. When we talk of the concluding V-I cadence in the final movement of Beethoven's Fifth Symphony we cannot understand it apart from the series of V-I cadences that precede it in the Finale, nor the three and a half movements that precede the finale.

A*n* experience, however, is not exclusive to the perception of artworks– even if the experiences artworks afford are exemplary. In the everyday we may have *an* experience: when eating a meal, witnessing a storm, solving a maths problem or having an argument. Indeed, Dewey, a figurehead of environmental aesthetics, found the aesthetic in all parts of life, even those that did not reach consummation in the manner required for *an* experience. Most importantly for our purposes, Dewey views the aesthetic as not attached to art but to the experiencer, inasmuch as it is specifically *experiences* that have aesthetic quality: the aesthetic is created by an experience rather than vice-versa.

[74] See Shelley 2015 and Iseminger 2003.

The internalist view Dewey initially formulated was pursued by Monroe Beardsley, whose contribution deserves close attention given that he arguably authored both the final detailed internalist theory and the founding externalist one.[75] Beardsley's shift from an internalist to externalist thesis carried most everyone else in tow such that the latter now enjoys a broad consensus. However, while the strong internalism offered by Dewey has been widely avoided, a vestige of internalism survives in recent literature as a narrower thesis: *internalism about value*. On such a view the descriptive elements of the aesthetic, such as 'unity' or 'coherence', are attributed to the object while the value those elements bring is attributed to the experience.[76] This view is considered in the next chapter.

The strongly internalist view proffered in Beardsley's *Aesthetics* (1958) prescribes that an aesthetic experience has not just unity but intensity and complexity, and furthermore that the unity of the aesthetic manifests in two forms– coherence and completeness. An object has aesthetic value only insofar as it induces such experience, thus ensuring that evaluation of the aesthetic is possible solely through introspection. The view that aesthetic features should be ascribed to the experience was robustly challenged by George Dickie. Dickie argued that a blinkered emphasis on phenomenal qualities leads us to take experienced properties as properties of experience; we mistake an experience of unity for a unified experience. Indeed, there appears nothing in the terms themselves will justify their ascription to experiences rather than objects.

> Note that everything referred to [in Beardsley's description of coherence] is a perceptual characteristic … and not an effect of perceptual characteristics. Thus, no ground is furnished for concluding that experience can be unified in the sense of being coherent. What is actually argued for is that aesthetic objects are coherent, a conclusion which must be granted, but not the one which is relevant. (Dickie 1965: 131)

[75] See James Shelley 2015.
[76] Beardsley occupied this position in transition (1969), see below, and the view is fairly well supported today (e.g. Goldman 2005, 2006; Budd 1995; Levinson 1996, 2006; Iseminger 2003.)

A property such as 'coherence' belongs to the aesthetic object, according to Dickie, and we become acquainted with this property through perception. When we discuss particular aesthetic features we invariably assign properties to objects; as such it seems at least convoluted, if not wholly unfounded, to transfer the properties of aesthetic objects to the experience of those objects.

Beardsley is gradually persuaded by this view, later characterising aesthetic experience as 'mental activity… that is united and made pleasurable by being tied to the form and qualities of a sensuously presented or imaginatively intended object' (Beardsley 1969:5; see Iseminger 2003.) This is a transitional period in his thought. While the aesthetic is now in some direct relationship with objective properties, it is still by nature phenomenal and evaluable through introspection alone. This then is an example of internalism about value and externalism about aesthetic structure, where value is given as intrinsically mental but correlates with the descriptive elements of the aesthetic, exemplified as 'form and qualities'. It could be that aesthetic value is attached to experiences, while the structure of those states reflects that of the artefact, such that aesthetic value cannot be understood by reference to the object in itself but the descriptive aspects of the experience can be. This is an important view but will be considered in full in the next chapter where value is a main topic.

Beardsley ultimately retreats almost entirely from an internalist viewpoint, maintaining the Deweyan idea of unity not of *an* experience, but rather in a broader sense of wholeness or coherence of self: 'A sense of integration as a person, of being restored to wholeness from distracting and disruptive influences… and a corresponding contentment' (Beardsley 1982: 289). By dropping the notion of a unified experience Beardsley no longer looks to characterise the aesthetic in terms of experience, but rather in terms of objective properties:

> To adopt the aesthetic point of view with regard to *X* is to take an interest in whatever aesthetic value *X* may possess (Beardsley 1982: 19.)

> The aesthetic value of *X* is the value that *X* possesses in virtue of its capacity to provide aesthetic gratification *when correctly perceived.* (ibid: 26)[77]

Here aesthetic value is attributed to the object and its enjoyment is subject to the criteria of 'correct perception;' further, the word 'experience' is now absent, having been replaced with 'gratification.' This last term refers to a subjective quality engendered through the satisfaction of certain conditions, a practice concerning identifiable properties and relations of or between objects:

> Gratification is aesthetic when it is obtained primarily from attention to the formal unity and/or the regional qualities of a complex whole, and when its magnitude is a function of the degree of formal unity and/or the intensity of regional quality. (Beardsley 1982: 22)

Aesthetic gratification dependent on *correct* perception of an object evidently precludes evaluating aesthetic experience introspectively, given that 'correctness' presumably has inter-subjective pre-eminence. Beardsley's revision has been marked as a milestone in the recent trend towards an externalist consensus.[78]

From this debate we can glean the following characteristics of both externalist and internalist views:

- On an *externalist view*, aesthetic features are identified as properties of the object– such as 'formal unity' and 'complexity'. The pleasure- or 'gratification'– an aesthetic experience offers is engendered through attention to such objective properties. This pleasure depends on *correct perception*: aesthetic perception can be right or wrong. The correctness condition of aesthetic perception supports the view that aesthetic experience is *epistemic:* a subject comes to *know* aesthetic features of an

[77] See Iseminger 2003: 104.
[78] See Iseminger 2003.

object. By conceiving aesthetic experience as a form of knowledge, it is by implication inter-subjective and sharable.

- An *internalist view*, on the other hand, will describe an experience of a particular kind– one that has aesthetic features, on which aesthetic value depends. Objects of a certain kind may be special in inducing such experience, but the aesthetic experience is attainable independent from any particular class of object or property. By being independent of any particular object or property, an aesthetic experience can be evaluated introspectively. On the internalist view, then, aesthetic experience is private and cannot be considered knowledge since it does not have correctness conditions.

4.5 Criticising an Externalist view.

The following is a critique of an externalist view of the musically aesthetic, wrought by Benjamin Boretz. This view should be called externalist rather than abstract because Boretz's relativist thinking is incompatible with the notion of a specifically musical domain. Further, the critique should be distinguished from any given in the previous chapters since it constructs a negative argument about the musically aesthetic generally rather than the phenomenon of musical movement in particular. The aims of the following are: firstly, to support the internalist view that aesthetic features are features of experience by undermining the externalist view that aesthetic features are external to experience; and secondly, to expose a flawed 'vehicle/content' model that an externalist view is, I argue, obliged to adopt.

Externalism attempts to account for aesthetic experience as a form of *knowledge*. In his *Meta-Variations: Studies in the Foundations of Musical Thought* (1970), Benjamin Boretz demonstrates the extreme towards which this view can tend, characterising music as the 'communication of ideas of relation,' (p.29). Music listening is here considered an intellectual endeavour: sound acts as a 'means' to

communicate a 'content' (p.35), and we as listeners engage with this content in an inferential manner, *understanding* the artefact by recognising the preeminent 'identities' (p.29) of musical materials. On Boretz's self-styled 'cognitive view', then, listening is *thinking.* This musical-listening-thought is abstract, being understood in terms of the 'conceptual framework' (p.34) of a particular culture, and as such how musical content is understood depends on the 'constructions placed upon patterns of differentiation by members of the [particular] culture' (p.35.) In other words, an externalist view such as this construes music as a complex of *abstract objects* couched in a sonic-temporal structure that itself has no direct influence on experience.

Key to this view is the locution 'hearing as.'

> I can "hear" any piece just about any way I decide to, or am asked to, as long as that way is empirically realistic… I *can* decide to hear a "tonal" piece as a "twelve-tone" one, or vice versa. What I *cannot* do is hear in a way that cannot be cognitively delimited. (p.57)

To *hear as* is to project a 'construction' onto sound, treating sound as an instance of a particular such construction and thus rendering what Boretz calls the 'musical data' from the 'musical structure.' *Hearing as* and indeed 'construction' are always exemplified by musicological terms, as is such in the quote above, and the clear espousal of a cognitive model renders this an exemplary externalist view. Boretz makes a robust separation between what can be understood as nonconceptual auditory perception, and what can be understood as conceptual content– thus, 'means' against 'content; 'patterns of differentiation' against 'construction', 'structure' against 'data'. Experience of the musically aesthetic, on this view, equates to knowledge of objective properties; perception of the musically aesthetic is set against 'normative criteria' (p.57), and will have correctness conditions in virtue of the representational model under which it is conceived.

Boretz's argument is most felicitous for the purposes of this essay in illuminating what I take to be a necessary commitment of an externalist view: a commitment to a *vehicle/content model*. Such a model is deeply problematic when applied to the musically aesthetic. The vehicle/content distinction has lineage in the philosophy of mind but can be understood without much technical delineation. It is similar to the type/token distinction considered in chapter 1 in how it links abstract objects and concrete particulars, but is clearly distinguished by its implication of a respective distinction between personal and subpersonal states: the contents of mental states are at the personal level, while vehicles of contents are causally explanatory subpersonal events, processes or states (S. L. Hurley 1998.) Types and tokens are not so constrained. As applied to the musically aesthetic, this model prescribes that 'sound'– understood in contrast to cognitive content (whether by recourse to acoustics or psycho-acoustics)– is the (subpersonal) vehicle for content, where content is identified as an abstract object and constitutes personal-level experience. I argue that this conception is fatally flawed since the aesthetic features of a piece are tied inextricably to the way that piece sounds: on a vehicle/content model it is possible for two distinct sounding pieces to be aesthetically identical (if they have the same content.) The remainder of this section will criticise this model as it is evidenced in Boretz (1970) before claiming that externalist accounts will be bound to this model insofar as they have the form described above.

One of the unfortunate corollaries of a vehicle/content view is revealed by Boretz's claim that 'natural' properties of sound play no role in music:

> [A]lthough people evidently invented music, some people appear to want to find in it a manifestation of nature, and speak about it with a kind of idealism that assumes a predetermined, inherent "natural" model of the course and shape of musical phenomena, both external and internal to the human auditory mechanism. The pragmatics of this musical ontology consist in an appeal to supposedly "natural" properties of sound, and "natural" dispositions toward the hierarchical primacy of certain relations

> of auditory phenomena, framed as an appeal to the "ear" in the sense of "psychoacoustic" behavior external to the musical context (p.30.)

This dismissal of 'natural properties of sound' is an extension of the content/vehicle model, Boretz making clear that the vehicle– the 'patterns of differentiation' constituting sound– is empty while the conceptual content gleaned from it is solely responsible for aesthetic experience. Sound is 'external to the musical context' (p.30). This approach tolerates very little scrutiny: if sound plays no part in individuating the musically aesthetic, then a musicological representation of, say, a perfect fifth, should be aesthetically equivalent to the sound of a perfect fifth, but this seems highly implausible. The position is not greatly helped by the argument made to support it. Considering the above quote, it is unclear why a phenomenon 'invented' by humans could not utilise the natural properties of sound– the argument that a particular facet of human culture cannot have ties to nature merely in virtue of its being a facet of human culture must be a *non sequitur*.

Another seemingly significant aspect that must be excluded on Boretz's view is *temporality*, presented as 'just the time-order dimension among the totality of information producing dimensions… Thus the observation that one pitch-complex slice is shorter, or longer, than all the others we have decided to compare it to just creates a relational fact, and our "surprise" upon noticing it during an actual audition is no more or less relevant to it as an aspect of musical structure than are the reactions of any of our neighbor-auditors who happen just at the same moment to fall asleep.' (p.39.) On this view, time is a framework wherein content is ordered. To argue that time is not an aesthetic feature of music is highly controversial, but is not made with any force by Boretz: 'As for "expectation", which appears usually to be used to account for the sense of time-dependency in presented musical structures, it is unclear *how* it actually does so' (p.39.) That the concept of 'expectation' can adequately capture music's temporality is itself questionable, but at any rate the point 'it is unclear how it actually does so' mounts no substantial case; this is just a flat dismissal.

The previous two chapters have rested on the argument that a central aesthetic feature of music– movement– can be explicated in terms of natural properties of sound; further, a nonconceptual model of temporality in music was developed in chapter 3. However, it should stand to reason that the credibility of any view that rejects the features of sound and time should be called into question. Aesthetic features depend on music's progress through time and its particular psycho-acoustic features.

The weakness of this view is that it seeks to explain music experience using ascriptions of content that are independent from particular instances of sound. Consider that the concept of 'A above middle C' can be expressed in a number of ways– as written language, utterance, as the acoustic property of '440hz' (written or spoken), as A_4, or as a symbolic representation in the form of a note head between the second and third lines of a musical staff. In any of these token forms the content can be said to be identical; as such each are *epistemically equivalent*, sharing the same reference (or 'referent'). It then follows that the A_4 in the third bar of Beethoven's string quartet in $C^{\#}$ minor, Op.131, is epistemically equivalent to the A_4 that occurs three bars later, along with every mode of presentation of 'A_4' given above. But clearly this epistemic equivalence does not match up whatsoever with aesthetic experience, given that each of the exemplars of A_4 given above afford different aesthetic experiences.

An externalist could attempt a rebuttal by appealing to *context:* the A_4 in bar 3 of op. 131 has a different contextual ground to the A_4 in bar 6 or the references to A_4 on the page above and can thus putatively account for the different experiences each A_4 affords. Pursuing this line, any musical content can be couched in terms of a framework of other content. So, any difference between the A_4 in bar 3 and that in bar 6 of the quartet might be explained by the difference in surrounding features– the addition of accompaniment in bar 6, the differing placement in the bar, the distinct accidentals preceding each note. Insofar as all musically aesthetic features can be understood as content that is represented in experience, appeal to context allows the externalist to account for discrepancies between identical musical features.

However, this point begs the question. Appeal to context will only provide an effective defence of an externalist view where it is assumed that all musical features are contents and that all differences in experience can be accounted for by differences in content. But I have argued in the previous chapters that movement, a central aesthetic feature of music, should not be understood in terms of contents. Further, it is clearly possible to have distinct experiences with identical contents where the difference cannot be captured by a difference in the surrounding contents; perceiving the same contents with different sensory modalities provides a robust example, e.g. the contrast between hearing the tone A_4 and reading 'A_4', or between reading 'A_4' and hearing the utterance 'A_4.' Relatedly, were a master musicologist to carry out a complete analysis of a piece– including formal analysis, background research, contemporaneous socio–cultural landscape and style– *without hearing it*, it seems she would then experience something new by listening to the piece for the first time. Experience will depend on *sensory modality*, and this is a dependence that would have to be related to the vehicle rather than the content.

Any theory of the musically aesthetic, then, must avoid a vehicle/content model. While Boretz provides an extreme example, I argue that any theory that commits to the features of externalism outlined above will *ipso facto* commit to a vehicle/content model. Externalists commit to a vehicle/content model insofar as they commit to the view that aesthetic experience entails epistemic acquaintance with properties of the object. Any features that are abstract objects– that are inter-subjective and sharable– can be understood as contents with a psycho-acoustic vehicle

Musical sound is *participatory*, its effect will depend on listener involvement; the same passage of music will *feel* different when heard from a recording, at a performance, or read from a score. A view that fails to account for the feel of music has no plausibility as a view on music experience. Indeed, it could be argued that such a strong externalism based in epistemic acquaintance rebounds altogether from music experience, serving more effectively as a thesis on music-

discourse. This concession would also resolve another issue proposed by Boretz, concerning the *relativist* nature of music proposed: it is trivial to say that music-discourse is relative to a culture, whereas it is also trivial to say that sound in time is not.[79]

4.6 Supervenience.

I have argued that an externalist theory of the musically aesthetic will fail given that it necessarily relies on a vehicle/content model, where the musically aesthetic is considered independent of the perception of sound. Consistent with this failure of the vehicle/content model is the view that musically aesthetic features are determined by psycho-acoustic features, where 'psycho-acoustic features' entail features of sound as perceived. Insofar as content is independent from vehicle, the musically aesthetic cannot be identified as a content communicated through sound as a vehicle since any difference in sound will correspond with a difference in aesthetic feature. In which case, aesthetic features are better understood as causally explicated perceptual processes or states than as intentional states. This section is devoted to developing and formalising this fixed relation between sound and aesthetic features using the concept of *supervenience*.

The debate on aesthetic supervenience has been shaped in large part by Frank Sibley's work on aesthetic properties and their essential character to 'emerge' from non-aesthetic properties (Sibley 1959, 1965).[80] Although Sibley never uses the term 'supervene', he is often taken as the standard-bearer of aesthetic

[79] Boretz seems to backtrack in some of his later writings ('The Logic of What?' *Journal of Music Theory Vol. 33, No. 1 (Spring, 1989), pp. 107-116*), choosing to emphasise phenomenology over conceptual description, which is favourable to the argument that reifying approaches that claim music is a complex of represented objects are untenable. In his opening sentence we find the terms "consciously experienced," "determinate feel," "perceptual consciousness" and "experiencing person." None of these terms are found in *Meta-Variations.* Further, he now makes a distinction between "musical meanings' and "technical terms" (p.2) when throughout *Meta-Variations* he conflated the two. However, he maintains a certain commitment to musical concepts ("music existential attributes" (p.2), "hearing *as…*" (p.3)).

[80] See also Levinson 1984, Zangwill 2010, Brady and Levinson 2001.

supervenience due to his objectivist tendencies and occupation with dependence relations. However, the term has a deal of flexibility in its usage, a prima facie characterisation given in 'Aesthetic and Nonaesthetic':

> any aesthetic character a thing has depends upon the character of [its] nonaesthetic qualities ... and changes in its aesthetic character result from changes in its nonaesthetic qualities.[81]

Crucially, Sibley does not commit to the claim that aesthetic qualities depend *only* on nonaesthetic qualities, and the latter part of his most influential paper 'Aesthetic Concepts' shows the import the contextual has in the aesthetic. Furthermore, to impute a supervenience relation is not necessarily to say that the determined features (*supervenient* features) are *reducible to* the features that determine (*subvenient* base) but just that they 'depend on' or 'emerge from' this base.

Supervenience, and its tie to Sibley, has been queried in a number of recent papers on the grounds that the subvenient base cannot be suitably circumscribed, extending as far into the background of an artwork as our research interest carries. To be at all persuasive the supervenience thesis seemingly needs to include far more than the apparently immediate properties of the object in the subvenient base: as mentioned above, the very same A_4 affords different experiences in different contexts. The continued revision of particular artworks ensures that further discriminations can effectively be made indefinitely, thus leaving the subvenient open-ended, to be rendered *ad hoc*.[82] This version has been called *robust* supervenience, but as John Mackinnon suggests, '[a]t a level of such insistent particularity… supervenience amounts to the distinctly uninformative claim that a work, to the extent that it is that work, has the character that it does.'[83]

[81] Sibley, 'Aesthetic and Nonaesthetic' p. 138.
[82] Ibid p.143.
[83] Mackinnon 2001: 94.

The failings of the supervenience thesis, I argue, can be attributed to a particular component claim, namely that all broadly aesthetic qualities of a work are 'entirely accountable in terms of the subvenient base.'[84] With this claim the thesis collapses into a reductionist thesis, leading to the aforementioned problems by substituting the dependency-relation with one of identity. A view that identifies all aesthetic qualities as non-aesthetic properties is not usefully termed supervenience and as such in this guise supervenience appears 'distinctly uninformative'. But if this reductionist tendency is eschewed the thesis remains both defensible and instructive, whether or not we favour the narrow sense of subvenient base– where context is excluded– or its broader sense– where (successively reconceived) context is included. It can be true that *both* the aesthetic qualities of a work can change while its non-aesthetic properties remain the same *and* that the aesthetic properties of a work hold a dependence-relationship with its non-aesthetic properties, if we posit that *any change in perceptible physical properties of a work will result in a change in its aesthetic qualities*. No reductive commitment is needed to make this claim, nor even a commitment concerning the subjectivity of listening or context of artwork. Indeed, this may be the thesis that is afforded by Sibley's confessedly negative argument, given that a dependence-relation is maintained where any change in y affects a change in x, even if the reverse is not true.

'Supervenience', then, has a meaning related to 'dependence', but is importantly different due to a particular asymmetry: to say that x *supervenes on* y is to say that x holds in a particular relation with y whereby any change in y will necessarily bring about a respective change in x but any change in x is not necessarily brought about by a change in y. In the case of the musically aesthetic, this renders the highly congenial thesis that any change in the way a musical work sounds will occasion a corresponding change in its aesthetic features, but any change in aesthetic features is not necessarily brought about through a change in the way the musical work sounds. While this is a form of dependency, it is to be distinguished from the claim that there can be no aesthetic change without a non-aesthetic change, since the dependency is 'one-way': aesthetic

[84] Mackinnon 2000: 389.

features depend on– are determined by– the non-aesthetic base, but can vary while the non-aesthetic base remains fixed. It should be stressed that supervenience is distinct to reduction: to say that x supervenes on y is not to say that x is reducible to y.

In sum: music's aesthetic value supervenes on sonic properties, where 'supervenience' is not assumed to be reductive but prescribes that any change in subvenient base results in a change in supervenient qualities; an externalist view that denotes music's aesthetic features as content and sound as vehicle is contrary to the supervenience relation, rendering sound an auxiliary aspect of music. There is a common-sense notion that the experience a piece of music offers is contingent on the way that piece of music sounds. It is a requirement of any theory of the aesthetic that it will account for the supervenience relation of experience and sound, a requirement clearly fouled by the vehicle/content model on which an externalist view rests.

While I have tried to resist overly technical explanation, it is worth briefly summarising the supervenience claim in a completely non-technical way. It is just the claim that any features that are both describable using the science of acoustics and perceptible by a human listener directly determine the aesthetic experience of that particular object (where 'object' is understood in the loosest way to include sound) in the sense that if the so described features of an object were to change the aesthetic experience would also necessarily change. This claim is compatible with the claim that identical objects can afford distinct aesthetic experiences, but incompatible with the claim that distinct objects can afford identical experiences. As an example, we can say that the surface of an object may appear different in colour in different light-conditions, but the particular pigmentation of the surface will also determine its colour-appearance in *all* light-conditions. So while the surface can appear a range of different colours or shapes depending on the light-conditions, it can also be said that were the pigmentation of the surface to be changed, its colour-appearance would also necessarily change. As such, the colour-appearance of such a surface *supervenes on* its pigmentation.

It is important to make this supervenience claim because I have argued, firstly, that an externalist view that does not take aesthetic experience to depend on the perception of sound is incompatible with the supervenience claim and, secondly, that the supervenience claim is true. As such, the supervenience claim disputes externalism and supports internalism.

4.7 The attitude of disinterestedness: *Formalism*.

It could be argued that the phenomenal view assumes a narrow conception of music, given that it advances a thesis on musical movement that proceeds exclusively from matters concerning the internal relations and properties of sounds (particularly when organised according to the tonal system) under perception. This can be considered a narrow approach due to its rejection of matters concerning context, culture, conceptual narrative and any other feature that can be associated with the experience of musical movement but cannot be described in the aforementioned terms. I will go on to describe how formalist views emerged in the literature, their strengths and flaws and how a phenomenal view that advances a psycho-acoustic viewpoint can be distinguished from the strong version of formalism which I concede is unworkable.

The aesthetic formalist view emerges when the aesthetic is given to depend on a particular attitude or state typically described as *disinterested.* When taking this aesthetic attitude, other mental states are actively suppressed so as to focus on the intrinsic perceptual aspects of sound. Such a conception was prominent in the 19th century following Immanuel Kant, who in the First Moment of the *Critique of Judgement* argued that a judgement of beauty was based on a feeling of pleasure that is peculiar for neither proceeding from nor resulting in desire for the object. While this treatment distinguishes aesthetic judgment from other forms– specifically judgments of the agreeable and of the good– Kant was arguably more moderate in formalist inclination than were his immediate

successors.[85] His distinction between free and dependent beauty, where the latter depends on the object's adhering to a particular concept, conflicts with the stronger view proffered by Eduard Hanslick shortly after– as did Kant's favouring of the dependent beauty of poetics and consequent demotion of music to the lowest form of art (\§51–54). Hanslick (1854) exploited the notion of disinterestedness to venerate the purest, most clearly non-representational artform– *absolute music*– although some have noted that his citing of *movement*– an ostensibly extrinsic feature– as a defining musically aesthetic characteristic undermines his reputation as the archetypal music-formalist.[86]

The strength of the conception of disinterestedness is that it appears to satisfy the desideratum (A) given above: an experience of pure form, void of any real-world concerns, demarcates the aesthetic and offers a characterisation thereof. Indeed, this was the prime motivation behind Clive Bell's formalism in the early 20th century:

> What quality is shared by all objects that provoke our aesthetic emotions? What quality is common to Sta. Sophia and the windows at Chartres, Mexican sculpture, a Persian bowl, Chinese carpets, Giotto's frescoes at Padua, and the masterpieces of Poussin, Piero della Francesca, and Cezanne? Only one answer seems possible– significant form. In each, lines and colours combined in a particular way, certain forms and relations of forms, stir our aesthetic emotions. These relations and combinations of lines and colours, these aesthetically moving forms, I call "Significant Form"; and "Significant Form" is the one quality common to all works of visual art. (1958: 417)

'Significant Form' and its nature as a common aesthetic feature is not given quite the depth some might want in Bell's disquisition, but nonetheless to dismiss this point would be to beg the question of what the grounding features of the aesthetic could be.

[85] See Zangwill 2005.
[86] See Hamilton 2007: 81-9.

Bell, and arguably Hanslick, are proponents of a strong version of formalism, which prescribes that all aesthetically relevant features of a piece of music can be understood solely in terms of that piece's immediately perceivable properties, where, in the case of music, immediately perceivable properties are exemplified as pitch, timbre, loudness and duration, and the more complex properties from which these derive such as melody, harmony, rhythm, and dynamics (De Clercq 2011.) Formalism so conceived seems combatable with a phenomenal view that accounts for aesthetic experience in terms of the internal relations and properties of sounds as perceived. However, one use of the supervenience thesis wrought above is that it distinguishes a phenomenal view from a formalist view that is *reductive*: a strong formalism views aesthetic experience as dependent *only* on immediately perceivable features, while the variety of aesthetic experiences that are afforded the same object (by the same individual or by multiple subjects) can be attributed to differing abilities of the subject(s) to understand or access such features. To understand this difference it is felicitous to consider the most important argument against strong formalism.

It is no coincidence that many of the theorists that expounded strong formalism were also critics– Bell and Hanslick both wrote as critics and as such their views were likely moulded by the contemporaneous art culture. As modernism became established in the early 20th century, formalism no longer accommodated the prevailing art culture; indeed certain critiques might suggest that it never completely accommodated any art culture. With his paper *Categories of Art* (1970), Kendall Walton helped refine the position that any experience of the aesthetic is shaped by prior experience and enculturation.

When presented with the bust of a Roman emperor, it is only preeminent knowledge of busts that draws focus towards the expression of the man it represents– like his world-wearied brow and upward glance. Without such pre-eminence the prominent features of the bust might rather be the severing of the body below the chest, the lack of colouring and the character of complete

stillness. Walton gave this example as evidence that representational properties are basic determinants of aesthetic character.

> The bust's uniform color, motionlessness, and abrupt ending at the chest are standard properties relative to the category of busts, and since we see it as a bust they are standard for us. (1970: 345)

Were it not for the perceiver's acquaintance with these properties, he would not perceive the object appropriately, since there are no immediately perceptible properties that will instruct the perceiver as to the appropriate interpretation of a bust. Aesthetic experiences are category-based, inasmuch as the category under which an object falls determines the experience of it. Walton concedes that 'paintings and sonatas are to be judged solely on what can be seen or heard in them—when they are perceived correctly. But examining a work with the senses can by itself reveal neither how it is correct to perceive it, nor how to perceive it that way" (1970: 367).

This argument was further advanced by Arthur Danto and now has widespread support.[87] As Danto showed with examples of Warhol's Brillo boxes and Marcel Duchamp's "Readymades", the state of the art-world did not support the formalist picture.[88] The Brillo boxes Warhol first exhibited as artworks are identical to those that could be bought in a store, but considered art in one instance and not the other. The received aesthetic legitimacy of such conceptual works implied that aesthetic value can, and invariably does, operate free from its object.

If a phenomenal view is to be defended, this fact that any aesthetic feature is determined by the category under which it is placed must reconcile with the notion that aesthetic features are determined by sound. The claim that aesthetic experience is determined by immediately perceivable features can be separated from the claim that experiencing an artwork appropriately depends on

[87] Zangwill 2001 is a notable exception.
[88] See Danto 1981, 94–95; Danto 1986 30–31; Danto 1997, 91; and Shelley 2015 for review.

categorising it appropriately by considering the latter a trivial truth that is applicable to all experiences. Consider that a formalism that rejects category-based experience would describe a practice of high obscurity, virtually without precedent outside aesthetics. In what instance might I have a conscious experience of an object that cannot be subsumed under a variety of different categories? I might consider pine an excellent material to construct a wardrobe but a poor material with which to construct shoes, unless I lived in the Southern Netherlands where clogs are an acceptable piece of fashion-wear. A set of knives in a kitchen may appear civilised while the same set carried about a person may seem barbaric. When an object is subsumed under a different category– furniture/clothing; utensil/weapon; commodity/artwork– the value of the object alters, and this must be true of all things. The category under which the object is placed determines the scope of its value.

A formalism so extreme as to insist on a singular all-encompassing category of art would be plainly false, but this does no violence to the position that the musically aesthetic has its basis in the formal qualities of sound and that these qualities determine the aesthetic. The value a perceived object supports is contingent on the attitude of the perceiver, and musical artworks are not insulated from this, as deeply personal, humanistic artefacts.[89] If the perceiver has no prior experience of, say, minimalist music, she may be confused on hearing 'Tabula Rasa' by Arvo Part, given that it presents the instrumentation of a symphony but employs repetitive ideas and intricate thematic development without the large scale form or harmonic depth of a sonata. Her experience is determined by the style-related categories under which she places 'Tabula Rasa'. However, the point that aesthetic experience is determined by listener attitude is entirely compatible with the claim that aesthetic experience *supervenes on* immediately perceivable properties. Aesthetic experiences of Tabula Rasa will differ depending on whether the listener is aware of serialism, or knows that Arvo Part has been the most performed living composer in recent years, or that he was trained in Soviet controlled Estonia; but aesthetic experience will *also*

[89] This is not to make any commitment to either a uniquely aesthetic or disinterested attitude. 'Attitude' above is not characterized in terms of being interested or disinterested or as uniquely aesthetic.

differ if in the opening bar the first violin played B_5 instead of A_6, usurping an octave equivalence to the second violin with a compound maj7 interval.

Having heard 'Tabula Rasa', the listener might seek out the music of Steve Reich, Phillip Glass and Terry Riley, after which she could better recognise the subtle changes in Part's simple melodies and the driving, powerful quality of the repetition. This fresh experience relies in part on appropriate enculturation– i.e. knowledge of a style– but such enculturation also allows appreciation of the finer formal details of the piece. When an object is supplanted from the mundane everyday to the artworld, as in Warhol's Brillo boxes, its altered value is a result of the altered attitude with which it is approached. As shown by John Cage's 'silent' pieces (I use quotation marks because the point of said pieces were, of course, that they could not be silent in the real world), all art depends on listeners bringing a particular attitude. The argument to consider is whether this practice of *treating-as-art* is itself an aspect of the aesthetic. Under normal circumstances we proceed under a network of background assumptions concerning relationships, context, standard, etc., all of which narrow our attention. These background assumptions are exemplified by the standard aspects of a bust to which Walton refers along with elements of style within music, and it is the range of differing responses such background allows that motivates the attack on formalism that swelled through the 20th Century. But if we conceive this background framework as a perceptual attitude rather than a constituent of the artwork, akin to the separation made between everyday objects and the categories under which they are placed, then we arrive at a feasible sense of formalism.

It is worth noting another way of making the anti-formalist argument, given by Gary Iseminger, who relates the applications of formalism with its origins:

> [Formalists] must have some reply to theorists who suggest that the very idea of the aesthetic as it is understood by contemporary philosophers is a creation of the eighteenth-century European bourgeois Enlightenment… and to anthropologists who find it highly problematic that people in non-

> Western or pre-literate or pre-historic societies have anything like the same kind of experience that we contemporary Westerners characteristically have when we attend to works of art. (2003: 106-7)

Listening for form does not necessarily originate with the Western Aesthetic Enlightenment, however. It has been claimed that a disinterested attitude has been a facet of art appreciation since the ancient Greeks.[90] It could also be queried why music's aesthetic value should be bound up with time and place in this way– an indication that aesthetic value is being identified with the cultural component of the music. But there are cross-cultural musical universals, and the point has often been made that all known human cultures have music.[91] Perhaps most significantly: Iseminger's argument would appear immediately fallacious were its subject some other non-aesthetic human discovery or advancement. No physicist would seriously claim that sub-atomic particles did not and do not exist outside of Western culture in the 20th century– the culture that wrought the theory.

4.8 Summary.

In the above I argued that any sense of formalism that rejects the role of listener attitude is indefensible. Any experience of the musically aesthetic must be determined by the attitude of the listener, just as in any other experience. The version of formalism vulnerable to the arguments from Walton and Danto is that which describes form as the sole determinant of aesthetic value. Above I have argued an internalist view, describing the musically aesthetic as determined by immediately perceivable properties of sound, but this view also concedes that the musically aesthetic is determined by factors beyond the perceivable properties of sound. What a phenomenal view can take from formalist views, however, is that the musically aesthetic can be defined in terms of *attention to* immediately perceivable properties.

[90] Hamilton 2007 chpt. 1.
[91] See Stevens and Byron 2009.

At the outset of this chapter I gave two desiderata or conditions for a theory of aesthetic experience to satisfy in order to be successful–

(A) that the explanandum is distinguished as the property or thing that it is

(B) that the explanandum is accounted for in non-circular terms.

A formalist view can satisfy the first of these desiderata by appealing to the notion of *immediately perceivable properties* (unpacked above.) The musically aesthetic can be distinguished as the thing that it is by appealing to the notion that an experience is characterized in terms of the immediately perceivable properties of sound– or the *tonal system,* as is typically assumed. This is a strength of the formalist viewpoint. However, any formalist approach that conflates 'form' with 'musical elements' will not satisfy (B), since it is a consequence of this view that 'form' will be understood as insulated from all non-musical things that could possibly be used to explain it. The work of the next section is to suitably extend the notion of immediately perceivable properties beyond this sense of form and thus define the boundaries of the musically aesthetic.

4.9 Acousmatic listening and the Abstractionist Conception.

The acousmatic relates to the formal but is a looser and therefore broader characterisation. Musical form, as noted above, is understood in terms of musical elements such as harmony, pitch, etc. In other words, the notion of musical form bottoms out at the concept of *tones:* discrete sound-events specifically ordered about the frequency-spectrum. The notion of the acousmatic does not share this constraint:

> Let's say I am walking in the woods and hear a creaking sound above me. An acousmatic response would be "That's a very interesting high-pitched sound, intermittent and rising in intensity"… A non-acousmatic response, in contrast, might simply be to look up, while thinking, "Is that branch about to topple onto me?" (Hamilton 2007: 102)

To attend to the acoustic properties of sound at the exclusion of real causes would be to attend to just whatever parts of the sonic array can be perceptually distinguished. This then suggests a broader notion of 'immediately perceivable properties' that does not refer to musical elements. Recourse to the acousmatic can thus be useful in giving a characterisation of musical listening as being determined by immediately perceivable properties while not presupposing musical elements.

The term is associated with Pierre Schaeffer and the Modernist movement, denoting a listening practice where acoustic qualities are favoured over the literal origins of sounds. To listen acousmatically is to veil real-world causes from consciousness and attend only to intrinsic properties of sound. While the acousmatic was tied to art on the emergence of electronic music and *musique concrete* in the 20th Century, the term has its roots in ancient Greece and *akousmatikoi*– an ancient term used to refer to a school of Pythagorean thought. Pythagoras is alleged to have given lectures from behind a screen, occluding himself so that his students could focus only on the words he spoke and not the speaker– *akousmatikoi* translating as 'those willing to hear' (Hamilton 2007: 100.) Many centuries later, advances in sound recording techniques provided another means to occlude sound sources and thus to 'return to an ancient tradition… restoring to hearing alone the entire responsibility of hearing a perception ordinarily leaning on other sensory evidence.'[92]

It is important to note that both the example of recorded sound and of a sound source being occluded by a screen present the acousmatic as a way of listening that is *forced upon* the listener: in each case the sources and/or causes of the sounds are not available to the listener, ensuring that only the sounds themselves can be attended to. The practice of listening to a concealed sound source implies that the causal origins are hidden; sound recording can be hailed as a particularly efficacious means to realise the acousmatic, due to its technical capacity to dissociate sound from its source. This then is a strict sense of

[92] Schaeffer 1966: 91; found in Hamilton 2007.

acousmatic as 'listening without seeing'. However, another looser sense has been given by Scruton (1999), according to which the tacit detachment of real causes is a necessary and basic aspect of music listening, one that obtains whether or not real causes are evident. As discussed in chapter 2, Scruton envisages a metaphorical sound-world where virtual causes and forces play out amongst tones, breathing life into sound through musical organisation. This treatment might seem to broaden the acousmatic by omitting any practical constraint in favour of the *intentional* constraint that sound is '*heard* "apart from" the everyday physical world'.[93] If acousmatic listening depended only on bringing a particular intentional attitude, it would be a mode of listening pertinent to soundscape, *musique concrete,* tonal and atonal music alike. However, the acousmatic is reserved exclusively for cases of musical organization in Scruton's (1999) view, where 'musical' denotes that belonging to the Western tonal tradition, although he does acknowledge a music-independent acousmatic experience in later work (2009).[94]

The concept of the acousmatic that can help elucidate a phenomenal view does not have the condition either that acousmatic listening is reserved for musical tones, or that it is 'listening without seeing', although I concede that acousmatic listening does entail bringing a particular intentional attitude of detaching sound from its sources– such detachment is necessary for nonconceptual perception. This notion of acousmatic can be considered an element of the Modernist critique of prevailing artistic standards; by engaging with 'acoustical' rather than 'musical' qualities, Modernist composers could lay claim to an artform whose borders stretch just as far as the sensory modality in which it is grounded.[95] Much of the justification of John Cage's music came from his exploration of this freedom, his willingness 'to let sounds be themselves rather than vehicles for

[93] Scruton 1999: 19, emphasis added.
[94] Hamilton points out a further notion of acousmatic– 'listening without knowing the cause' (2007: 101).
[95] However an interpretation of acousmatic listening that includes experiences of musical movement diverges from that made by Schaeffer, who considers a sense of movement as being not an aspect of the sounds themselves, but rather a perceptual effect of the sonic materials. For Schaeffer, the listening attitude adopted should be *suppressive* of such effects. Scruton's view is distinct in that he suggests listeners 'spontaneously detach' sounds from information about their respective real-world causes.

man-made theories or expressions of human sentiments.'[96] The irony of this critique is that the Modernist celebration of the acoustic has at its heart the traditional aesthetic notion of disinterestedness where purpose is subjugated to intrinsic quality: 'To be interested in Satie one must be disinterested to begin with, accept that a sound is a sound and a man is a man' (Cage 1961: 81) It could be argued that acousmatic listening has a transformative power to enlarge the aesthetic significantly, promising that music can obtain in any sonic form.

There is thus a danger here that the acousmatic conception merely reiterates the Kantian conception of the disinterested aesthetic attitude, and as such it is worth making absolutely clear the differences. As discussed above, the acousmatic provides a useful means of denoting a particular listening attitude, pertinent to aesthetics, whose primary characterization is in terms of sound rather than the musically aesthetic. The reasons for the acousmatic lacking the association with the aesthetic that the formal has relate in part to distinct lineage, with the acousmatic being formulated without reference to art or the aesthetic, and being appropriated by Modernists who endeavored to oppose the hegemonic system that had developed since the enlightenment and, particularly, Kant's framework. But perhaps the clearest way to distinguish the acousmatic is by noting that it makes no assumptions of *value* or *pleasure,* central to the judgement of beauty, and as such clouds the line between the aesthetic– which must have some value component (even if not a pleasurable one)– and the merely perceptual. It is perhaps this character that for Scruton suggests the acousmatic as *proto-music*, entailing the pertinent intentional attitude if not the organization that brooks *value*.

Indeed, without the tonal framework, the meaning of sound sources or artistic precedence, there are no obvious means to assign *value* to the acoustic qualities of sound, leading to Cage's conjecture that there are no ugly sounds. The next chapter deals with value in detail, although it is apt to consider Cage's claim here in order to suitably expand on the notion of the acousmatic and thus indicate the boundaries of music a phenomenal view imposes. Acousmatic in the relevant

[96] Cage (1961: 12.)

sense is merely the awareness of the acoustic coupled with ignorance of the causal. I will attempt to show that acousmatic listening in this sense has the potential for value without reliance on musical elements such as tones.

Many soundscapes might offer valued acousmatic experience due to their richness and balance; consider for example a busy London coffee shop. One might hear the broken rhythm of footsteps panning across both axes as a waiter moves between tables; the clinking of crockery as he clears; the scraping of chairs and a slamming door; the whirring coffee machine and bubbling milk frother; the distinct hums of the air-conditioner and fridge combining as one and passing traffic– high-frequencies attenuated by the glazing– presenting as infinitely variable waves of white noise; the room filled with conversations, perhaps in a number of different languages, each of which employing different vocal ranges and timbres along with individual dynamic-/pitch-contours; and underlying it all is the bed of familiar pop music, tinnily sounding out from an inexpensive sound system. Such a scene has great complexity and intricacy, with a range of sound sources, many of which are constantly traversing space; a listener is active in this spatial complexity, holding the potential to substantially alter the phenomenology of the scene just by moving her head towards or away from particular sources.

It seems reasonable that one's attention might be absorbed by this soundscape, but not out of desire for its sources, nor intellectual curiosity, nor its musicological ingenuity. Consider that the words used to summarise the above experience are apt to describe an aesthetic object: 'intricacy', 'complexity', 'richness', 'balance'. These are pervasive words in aesthetics, while still being definable without reference to aesthetics. Such a soundscape, then, completely lacks the order of the tonal system but might nonetheless be granted *aesthetic* credibility. However, while such an aesthetic experience does not rely on the tonal system, it nonetheless depends on a particular order of elements: if a baby on the next table starts to cry loudly, attention would be interrupted and the value of the experience duly altered, just as it would if the pop music were played so loud that the speakers resonate, or it so happened that all

conversations ceased but one and attention was thus drawn to its content. The experience's potential for value is in fact delicately poised, mediated by the acoustic properties of the soundscape. A complex non-tonal aesthetic experience depends on balance, variety and change, just as does a tonal aesthetic experience, and these qualities are understood by invocation of *acoustic* properties. A crying baby can spoil the experience just because it is a sound of high intensity at a high frequency.

There are no reasons to suppose this experience of a London coffee shop cannot be fully rendered in psycho-acoustic terms, and that the value of such an experience cannot be described using terms that aestheticians use to ascribe value. The distinction here is that the potential for such a soundscape to be valuable cannot be explained using a musicological analysis in terms of musical elements, but can be understood in terms of psycho-acoustic properties. The musically aesthetic, then, depends on (i) bringing an acousmatic attitude to sound, where real-world causes and sources are ignored, (ii) finding a value that depends on an ordering of psycho-acoustic properties that (iii) can be described using terms that have utility in aesthetic description. This invites the question of what relation (iii)– description in terms normally used to denote aesthetic value– truly has to value, but this is a question for the next chapter.

4.10 Claiming the Acousmatic as Internalist.

Hamilton subsumes formalism, autonomy and acousmatic listening under the 'abstractionist position' (see chapter 3): '[t]his position detaches music from the world, making it the most abstract of the arts– a pure "art of tones"' (2007: 95.) As mentioned previously, his use of 'abstractionist' parallels the meaning of 'abstract' in this thesis, referring to a domain that exists without a time or place. Scruton also endorses this view, where acousmatic listening is taken to be the perception of properties that obtain in an abstract domain, external to the listening subject. Such a view is partly a consequence of the assumption made by both that the pertinent properties are musical elements, bottoming out at the

level of tones (which are thus assumed to be abstract objects). However, I have made the contrary claim here that the acousmatic, and indeed a weak sense of formalism, should be understood as internalist and dependent on the act of perception.

On Hamilton's view, the acousmatic and the formal can be cast as somewhat distinct expressions of the abstract model, and much literature since Walton can be seen to push back against this model to reaffirm music as a human artefact. The prevailing assumption that ostensibly intrinsic aspects of sound and tone are abstract forms may reflect the rise of the work-concept and the resultant idealisation of the score that took hold through the 18th and 19th centuries, as Hamilton notes (2007: 113.) Form is concretized by the score, allowing the artwork a definitive article to which all instances of performance and experience refer. It is the divorce from real world truths that bore the artwork that leads formalists and modernists alike to the significant claim of a distinct *domain* of relative autonomy. Music listening is described as engagement with a particular, *sui generis*, set of rules and properties that do not extend beyond the musical. The assumption that acousmatic and formal listening accords with an abstract model can be challenged by denying that the ostensibly intrinsic aspects of sound or tone evidence aesthetic-specific domains of sound or tone. Were it not for the Western propensity to think in terms of work-concepts, it may seem quite a leap to make this move from intrinsic qualities to abstract domains.

The comparison with words is instructive. A particular word has a particular meaning, a meaning that is shared amongst a people, that is not contained by the word itself but is referred to by it. I can only grasp this meaning if I have been informed of it: I could not work out the meaning of a word just from its appearance. Say the word is CAT; there is nothing in the placement of pixels on the screen that is shared with the appearance of a cat, nor is there anything in the sound of the utterance *CAT* that is shared by the sound of a cat. So to understand the word CAT I need to be acquainted with the meaning of the word and have been informed of the reference, where the meaning of the word is not contained in any locality but is independent of time and place, is abstract. But

this is not all there is to the word CAT because there is also the particular position of pixels on the screen. The type/token distinction was discussed in chapter 1, and it can be said that the particular pixels on the screen are a token of the abstract object (meaning) which is itself a type. However, this is inadequate since a token can only be understood in terms of a type, so to describe CAT as a token is merely to describe it as a concrete instantiation of a type. It seems there is something more to the word CAT than its role in referencing a meaning, since I can perceive the appearance of the word without considering its meaning. To deny this would be to deny that CAT has an appearance at all. If I can have an experience merely with the appearance of the word CAT, without considering its meaning, then I am engaged in perception without being acquainted with abstract objects. This should not be a major claim; it is just to say that I am able to perceive the appearances of things.

The meaning of the word CAT is to be understood as conceptual, while an experience with the appearance of the same word is to be understood as nonconceptual. There are no reasons to assume that an experience with the appearance of CAT is abstract: it is an experience that is realised by the act of perception, and is possible because we can perceive appearances independently of the meaning to which they refer. A phenomenal view construes the intrinsic qualities of sound or tone as a psycho-acoustic phenomenon that can be distinguished from the extrinsic qualities of sound or tone for being nonconceptual.

The experience of the intrinsic can be elucidated on the phenomenal view. Consider the following corollaries that reflect the desiderata set out above: (1) a central aspect of the musically aesthetic –musical movement– can be understood without presupposing the musically aesthetic– by reference to garden perceptual functions; (2) the musically aesthetic is determined by immediately perceivable properties, where these properties are understood as nonconceptual. But these have another significant consequence: the musically aesthetic, in being determined by nonconceptual perception, is *experienced* as *intrinsic* to music– as having no connections to things beyond itself. Insofar as an experience is

nonconceptual it will not present extrinsic connections to the experiencer; it appears as an experience of intrinsic qualities, such as 'the redness of red.' Without ascribing concepts to a percept, an experiencer cannot think about its relation to other things– i.e. she cannot bring to bear a language (a language of thought or a natural language, see chapter 1.) This feature of a phenomenal view can thus help explain why musical movement is explicable in non-musical terms while it is experienced as intrinsic.

A key advantage to the phenomenal view, then, is that it can satisfy both the intuition that aesthetic features are intrinsic to music and the explanatory goal to provide an account of the musically aesthetic in non-circular terms. In entailing nonconceptual perception, musically aesthetic experience represents nothing conceptually to the experiencer, revealing no relations with the non-musical. Conversely, the musically aesthetic is given a non-circular account on the phenomenal view by recourse to a psycho-acoustic conception.

4.11 Amalgamating the humanist and abstract positions into a single view, and the relative value of the musically aesthetic.

Hamilton does not acknowledge the internalist view, but argues that the abstract model is too exclusive. His response is the 'twofold thesis', whereby intrinsic properties are appreciated alongside extrinsic properties such as literal causality and reference: 'music is *abstract in form but humane in utterance*– and utterance is essential' (p.114.) The compromising position is a persuasive one, but it is a compromise based on a problem misconstrued as a dilemma. Form need not be conceived as abstract, it can be conceived as having psychological ground and as such being in the world as an aspect of psychology. In this sense, tones have not been designed to effect their own autonomy; they have been designed to fulfil a certain psychological parameter, and their being stable and structured is a reciprocation of the domain in which they operate (psychology). This is not to

suggest that tones may not *appear* to exhibit autonomy– as mentioned above, the absence of pertinent reasons for the effect of form given to the listener can suggest intrinsicality or autonomy– but that the distinction between literal causality and reference, and intrinsic properties is one pertaining to *perception*. Literal causality and reference is experienced conceptually while intrinsic properties are experienced nonconceptually, and so what where two horns of a dilemma can be cast as two interrelated modes of psychological engagement with sound.

I argued above that the musically aesthetic is determined both by immediately perceivable properties and by the attitude of the listener. However, a critic might demand clarification of precisely what this means in terms of the *boundaries* of the aesthetic. While I have argued a view of the musically aesthetic as *attention to immediately perceivable (sonic) properties*, it is a consequence of the supervenience thesis and the argument made from psychology over the previous chapters that the musically aesthetic consists in psycho-acoustic properties, which then implies that any references a musical object has to properties that are not so understood must be taken to be non-aesthetic.

This might then seem a less attractive view to Hamilton's twofold thesis for its failure to account for many phenomenologically salient features of musical experience, such as lyrics or socio-cultural references. However, I argue that the musically aesthetic cannot be theoretically demarcated unless the term is used to refer to things that are independently musically aesthetic. And it seems that lyrics or socio-cultural references are not independently musically aesthetic given that if they were taken individually (apart from any ordered acoustic background) they would not be musically aesthetic. Therefore I disagree with Hamilton that the capacity to recognise a particular instrument as that particular instrument is 'genuinely musical,' since the exercise of such a capacity would not constitute musical experience. This can be shown by the fact that many non-human things, like machines or animals, could demonstrate the capacity to recognise a sound as, say, a piano, while such things will not be having musical

experience. Relatedly, were lyrics read without musical accompaniment, it seems they would not be experienced as musically aesthetic.

Such a position would appear deeply unappealing to many, since, intuitively, conceptual narratives like lyrics can be an integral aspect of a musical experience; indeed, song can be considered a musical genre in its own right. But this objection rests on a particular presumed sense of 'musical experience'. 'Musical experience' is, evidently, a vague term that could include or exclude a vast range of experiences depending on how it is intended. The two extremes may be: (a)– all experience that can be related to an instance of listening to music– and (b) the experiential phenomenon of sound that is ineliminable and sufficient for music experience. The ostensible danger of adopting (b) is that this would diminish musical experience, permitting fewer kinds of experience than music actually affords. This objection may stem from certain ideological assumptions behind what the concept of music should capture. It would be unsatisfying to believe that Wagner's distinctly musical genius relates only to the formal aspects of his operas; similarly, it would be unsatisfying to believe that the socio-political commentary of Bob Dylan's 'Blowing in the Wind' does not contribute to its value as music.

However, it is reasonable to distinguish the 'musically aesthetic' (or experiences thereof) from 'musical experience', and to allow that the former may be a much more exclusive term. Dissatisfaction with this distinction only arises if proceeding under the hegemonic system associated with Romantic composers and *Absolute* music. To argue a view where the musically aesthetic is demarcated from extrinsic aspects of music like lyrics and commentary is not to argue that the musically aesthetic is *superior to* such extrinsic aspects. The tendency to ascribe the value-judgement follows from a hegemonic assumption about the musically aesthetic that is completely unsupported.

It may be that the prime focus of Frank Zappa's 'Magdalena' is the quick-fire collage of perfectly executed musical ideas, approaching a certain degree of rhythmic complexity with an ever-increasing tempo. Conversely, a listener might

consider the highest value of the song to be its juxtaposition of music and lyric. Magdalena tells a story of incestuous sexual abuse over a musical base of high-tempo bouncing bass-lines, stylistic clichés and exaggerated falsetto vocals. This narrative certainly affords the piece a far more powerful effect, since the jollity of the music encourages the listener to collude with the abusive father who, for the most part tells the story. Eric Clarke calls this relation between music and lyrical content *subject-position*, reinforcing the notion that musical elements can interact powerfully with conceptual narrative.[97] Whether or not subject-position is a wholly aesthetic concern depends on whether the narrative content of lyrics is taken to be aesthetic. The view given here is that such content is not aesthetic, both for the supervenience argument above and also for the point that such a narrative would not have aesthetic value if it were taken outside of a musical context. However, this only presents a problem if the aesthetic aspects of the piece are considered autonomous, thus making subject-position impossible; if, conversely, the aesthetic features are understood as nonconceptual perceptual features it is clear how subject-position can obtain, since it merely indicates the kind of interrelation between conceptual and nonconceptual features that is apt to occur in everyday perception.

The listener may adopt an attitude towards the narrative, the music or the relation of the two and nothing is taken away from the force of the statement Zappa makes with his narrative structure by deeming it non-aesthetic. By dismissing the concept of an aesthetic domain, the boundaries of music's aesthetic value become permeable. The mechanisms by which music's aesthetic value emerges are identical to the mechanisms by which all thought emerges– those psychological processes responsible for engaging with stimuli. It is possible to distinguish the aesthetic as nonconceptual perception, although this form of engagement inhabits the same domain as the practice of engaging conceptually. Indeed, there is no implication that experiences ensuing from intellectual endeavour with artworks should be less rewarding than those ensuing from purely perceptual endeavour, just as there is no implication that

[97] Eric Clarke (2005).

these modes of perception might not interrelate or combine to enrich experience.

4.12 Conclusion.

To reiterate the desiderata set for conceptions of aesthetic experience at the beginning of the chapter: an account of the musically aesthetic should (1) distinguish the aesthetic from the non-aesthetic in such a way that it (2) does not presuppose the aesthetic, while preserving the close connection between art and the aesthetic.

Boretz's externalist approach will fail to make any distinction between aesthetic and non-aesthetic, given that the musically aesthetic is understood as reducible to the cultural, social or theoretical concepts that musically aesthetic objects can reference. As such, it is unclear how the musically aesthetic can be distinguished from those same extrinsic references, and the supervenience argument that acoustic properties determine the aesthetic prohibits such references being identified with the aesthetic.

While a strong formalist view that implies a musical or aesthetic domain can distinguish the musically aesthetic, it will fail to account for it in a way that does not presuppose the musically aesthetic. Such a view can distinguish the musically aesthetic in terms of 'significant form', understood as value found in immediately perceivable properties, which in turn are understood in terms of musical elements. However, this view cannot provide a non-circular account given that it bottoms out at the concept of tones, implying a closed musical (or musically aesthetic) domain.

In contrast to these externalist views, the phenomenal view offered here can satisfy both (1) and (2) by ascribing the musically aesthetic to psychological processes. The musically aesthetic is not reducible to extrinsic references, contrary to Boretz, and is indeed determined by immediately perceivable

properties. However, these properties do not have the musicological concept of tones as their basis but rather are based in the psycho-acoustic: the properties of sound as perceived. As such, this account broadens the aesthetic considerably from the strong formalist picture, in accordance with a conception of *acousmatic* listening: attention to sound coupled with the occlusion or ignorance of the causes and sources of sound. The musically aesthetic is thus distinguished as attention to immediately perceivable properties of sound that has value, and this account can be given without presupposing the aesthetic because immediately perceivable properties are understood as empirically accessible psycho-acoustic properties. Finally: a close connection between art and the aesthetic is maintained given that the particular value particular artworks have can be supported by explicating their psycho-acoustic properties in terms of conventional aesthetic evaluative words like balance, order and complexity.

4.13 Summary.

An extended summary using the sub-headings above:

–The Meaning of *Internalist/Externalist*.

The terms *internalist* and *externalist* were introduced above to strengthen the phenomenal argument by providing designations of broader views that are implied respectively by *phenomenal* and *abstract.* Both Boretz's cognitive approach and Hamilton's humanism exemplified externalist views that are distinct from the abstract view by lacking any commitment to a specifically musical domain. Further, Beardsley's internalism lacks the commitment to the psycho-acoustic that characterises the phenomenal view.

A debate that started with Dewey but developed between Beardsley and Dickie was used to characterise the externalist and internalist positions. Some key features:

Externalist

- Aesthetic features are identified as properties of the object.
- Experience is *epistemic:* a subject comes to *know* aesthetic features of an object, ensuring that the aesthetic depends on *correct perception.*
- By conceiving aesthetic experience as a form of knowledge, it is by implication inter-subjective and sharable.

Internalist

- Aesthetic features are aspects of experiences
- The aesthetic experience is attainable independent from any particular class of object or property
- By being independent of any particular object or property, an aesthetic experience can be evaluated introspectively

–Criticising an Externalist view.

An extreme externalist view, belonging to Benjamin Boretz, was considered to illuminate the problems with the externalist position. Boretz subjugated the features of sound and time in music to contents described as variously as 'musical data' or 'constructions', casting sound and time as means to communicate concepts. This critique helped delineate the vehicle/content model that I argued was entailed by an externalist view. Given that sound in time does not contribute to the musically aesthetic on such a view, written and heard music must be considered identical due to a common epistemic identity.

–Supervenience.

The problems of a vehicle-content model support a supervenience thesis about music experience that states that the musically aesthetic is directly related to the acoustic properties of the object as perceived. This claim of supervenience should be distinguished from one of reduction in as far as only the subvenient base (acoustic properties) determines the supervenient (the aesthetic), although the supervenient is not solely determined by the subvenient. Such is to say that two identical sounds may afford distinct aesthetic experiences while two distinct

sounds cannot afford identical aesthetic experiences. The supervenience thesis is an expression of the base intuition that the aesthetic experience of a piece of music depends on the way it sounds. Externalist views conflict with this thesis since they rely on an epistemic framework that allows distinct experiences identical content.

–The attitude of disinterestedness and the intrinsic: *Formalism*.

By favouring the supervenience thesis and rejecting externalism the internalist appears to be committed to formalism, the strong version of which being characterised as: *all aesthetically relevant features are determined solely by immediately perceivable sonic qualities*. However, it was argued that this strong version is untenable since aesthetic experience depends on the category under which an object is placed. I have conceded that aesthetic experience is category-based, inasmuch as the category under which an object is placed by the perceiver will determine the aesthetic experience. However, as relates to the supervenience thesis, while any identical artwork can afford distinct experiences dependent on the category under which it is placed, any change to the formal properties of a work will necessarily engender an aesthetic change.

The sense of formalism that is implied by a phenomenal view thus includes a qualifier of *attention to*: the musically aesthetic is understood in terms of *attention to immediately perceivable properties.* This is a weaker version of formalism given that it accepts that the musically aesthetic is determined by something other than immediately perceivable properties, namely the attention of the perceiver.

–Acousmatic Listening.

The notion of immediately perceivable properties, and thus the boundaries of the aesthetic, can be extended and defined by developing a position towards the *acousmatic.* It is necessary to extend beyond the notion of musical elements in order to satisfy (2) above. The concept of the acousmatic has a different lineage to the formal, originating in ancient Greece and being associated with the musically aesthetic first by Pierre Schaeffer with the development of recording

technology in the early 20th Century. Two construals of *acousmatic* were distinguished, one which assumes that sound sources are hidden from view– allowing full attention to sounds in themselves– and another which eschews this assumption while maintaining that real causes are implicitly repressed in typical aesthetic experience as to induce the same focus on sound. Under the latter construal, the pertinent base becomes the *acoustic* (or, more accurately, the *psycho-acoustic*), in contrast to the formal, and as such acousmatic listening can apply to all musics along with non-musical sound in the case that such sound is approached with the appropriate attitude.

An acousmatic listening attitude can be distinguished from the concept of Kantian disinterestedness by noting the evaluative dimension of the latter that does not attach to the former, along with the aforementioned inclusivity of the acousmatic that diverges significantly from the Kantian notion. The notion that the acousmatic contributes to an *abstract* view of music is challenged above to favour a view of acousmatic listening as psychological engagement with just the acoustic properties of sound. Such listening does not presuppose value and can be cast as concerning *intrinsic* features. Acousmatic listening therefore is only aesthetic when it has value.

–The Value of the Aesthetic/Non-aesthetic.

A phenomenal view deems conceptual content non-aesthetic and thus may appear overly restrictive; however, such content admits of the vehicle/content divide, contravening the supervenience thesis. It was suggested that any conceptual content such as narrative or lyrics is not independently aesthetic, given that were such content displaced from its context in a particular work it would no longer be considered aesthetic.

An acousmatic viewpoint only diminishes music experience where a particular conception of 'music experience' is subscribed to. Here I adopt a narrow conception entailing only the features that would *independently* be regarded as *musically aesthetic*, for the reason that any other conception will encounter the problems of externalism and will not be able to distinguish the aesthetic from

other kinds of experience without presupposing the aesthetic. It does not follow from this that the extrinsic aspects of the musically aesthetic are less valuable.

In sum, this chapter has argued that a phenomenal view of the musically aesthetic can be borne out. The above has extended the explanandum considerably by approaching the musically aesthetic generally rather than musical movement in particular. I have defended an *internalist* conception, which is implied by a phenomenal view, by criticising the opposing externalist view and by refining a key notion of the musically aesthetic– its dependence on sound. The defence of the internalist view of the musically aesthetic supports the phenomenal view of the musically aesthetic, and the inclusivity of acousmatic listening dictates that that a phenomenal view, entailing a psycho-acoustic conception, should be favoured as a view on the musically aesthetic generally.

Chapter 5

Musically Aesthetic Value: an internalist view.

5.1 Introductory Summary.

This is a chapter on *musically aesthetic value*: how this value relates to the immediately perceivable properties that were described in the previous chapters; how this value relates to other kinds of value; how this value can be or cannot be explained; the inter-subjectivity of this value. I argue that musically aesthetic value is intrinsic to the experience of nonconceptual psychology and, relatedly, is non-explicable. The following is divided into sections that address the following issues:

Understanding musically aesthetic value: *normativity* and *survivalist value.*

–An introduction to broad issues concerning musically aesthetic value.

Using the terms *evaluative* and *descriptive.*

–Defining these terms as they relate to Beardsley (1969) and arguing that a psycho-acoustic account only addresses the descriptive.

Giving a bespoke characterisation of musically aesthetic value.

–Giving a characterisation in terms that do not presuppose the aesthetic or human behaviour.

Intrinsic, extrinsic and instrumental value.

–Discussion of terms as they relate to the literature.

Criticising externalism about intrinsic value.

–Criticising externalism about intrinsic value generally, with Budd (1995) invoked as an example.

Externalism about the descriptive and internalism about the evaluative.

–Criticising an amalgam view that attempts to overcome the problems of externalism by attaching intrinsic value to experiences.

Musically aesthetic value is non-explicable: analysis of research from psychology, musicology and aesthetics.

–Arguing that the fact of musically aesthetic value is *contingent*– in the sense that our descriptive models of music do not address it– using researching in music-studies as well as philosophy of mind.

Inter-subjectivity of aesthetic response: The universality of the perceptual apparatus and dealing with appropriateness of response.

–Showing that nonconceptual psychology can account for inter-subjectivity by criticising Budd's response to Kant's theory of aesthetic judgement.

Analysis: nonconceptual psychology beneath free conceptual description.

–Strengthening the view that the inter-subjectivity of aesthetic response is accounted for by commonalities amongst nonconceptual psychology by linking free conceptual description with the nonconceptual psychological processes that are coextensive with experience of the musically aesthetic.

Concluding Summary.

–Given in extended detail.

5.2 Understanding musically aesthetic value: *survivalist value* and *normativity.*

There is little consensus in any discipline concerning why listening to music is pleasurable. Some have argued that value is an effect of expression, where expressive aspects of an artwork induce an emotive response in the listener that can be appreciated in an isolated way, safe from the implications such emotion would carry in the real world. Those who make such arguments have, however, tended to deny expression a primary role, maintaining instead that music's abstract elements contribute most towards its value.[98]

While emotion is a major subject area in music psychology there is no available account of the psychology of musically aesthetic value in terms of emotion since: (i) there are no available accounts of the causal mechanism by which musical materials can provoke emotion (despite the popularity of the research area);[99] and (ii) there is no account of how value should emerge from the provocation of emotional states that are not associated with value. (ii) can be elucidated by asking where else in psychology can an explanation be found for why perceiving fear, danger or tension– emotional states often ascribed to musical experiences– should be states naturally sought?

What seems to be clear is that the value of music is *species-specific*: there is empirical research to suggest that nonhuman primates not only lack the ability to find pleasure in music but find it distinctly displeasing, preferring silence.[100] On the other hand, it has often been noted that all known human societies have had a music culture. The key to understanding musically aesthetic value may thus lie in some facts of human affairs or culture. Indeed, while physiological and evolutionary accounts may be forthcoming for the value of food, sex or warmth,

[98] Ridley 1995: 192–6; Levinson 1982; 1992: 20–2; 1996: 124–5; Scruton 1997: 380–91; S. Davies 1994: 271; Budd 1995:155.
[99] See Juslin (2009, esp. p.135.)
[100] McDermott and Hauser, 'Nonhuman primates prefer slow tempos but dislike music overall:' 2006.

there is no analogous account for the value of music. The music-psychologist Ian Cross notes the survival-inefficacy of music:

> '[Music] appears to have no immediate and evident efficacy. Music neither ploughs, sows, weaves nor feeds; in itself, if it can be considered to exist without its context of use, it does not seem to be capable of being a material cause of anything other than a transient hedonic encounter. It is inefficacious.'[101]

Insofar as an aesthetic experience with music entails a listener responding with pleasure to sound– without any material, physiological or situational advantage– the value that music provides is not accounted for in terms of preservation of the individual or species. As such, as compared to other pleasures like those of food or sex, pleasure in the musically aesthetic appears mysterious.

In philosophy, this disparity between musically aesthetic value and other pleasures is often taken to reflect the difference between factual and *normative* statements, where 'normative' statements provide an evaluation, or an account of how things should be. The stem 'norm' has the meaning of: something that *should be*, or that should be pursued. Normative statements are, as such, *prescriptive*: they do not just express something that an individual values but they make a claim about something *everyone* should value.

Given that an aesthetic judgement is based on a feeling of pleasure or displeasure, rather than on empirical fact, it can be considered subjective. However, we make a claim to universal agreement in our aesthetic judgements. As Kant suggested, when someone makes an aesthetic judgement 'it is not as if he counts on others agreeing with him in his judgment of liking owing to his having found them in such agreement on a number of occasions, but he *demands* this agreement of them' (Kant 1790, p. 52.) Aesthetic objects can only be said to have a certain value if a group of people agree that the object has such value under certain conditions

[101] Cross 2003: 4

If our aesthetic judgements meet with disagreement from others, it is our wont to say that those detractors *should* or *ought* to make the same judgement as we do. It is this demand for agreement that makes aesthetic judgements different from other purely subjective judgements concerning preference of, say, a particular style of coffee: if I prefer black coffee and you prefer a latte, it is not my wont to say you *ought* to prefer your coffee black. This appeal to ought-statements makes aesthetic judgement appear an ethical or moral issue, since a clear extension of this type of attitude towards aesthetic judgements is that one might *take offence* at another's taste in art. David Hume famously made the point that an 'ought' cannot be derived from an 'is', meaning ought-judgements like *you ought to appreciate the works of Erik Satie* are of a different type to is–judgements like *Gymnopédie no.1 is the first of a series of expressionist piano compositions that pre-empted Minimalism and Surrealism.* More generally, Hume's point is taken to mean that ethical or evaluative conclusions may never be validly inferred from any set of purely factual premises (Cohon: 2010.)[102] (There are notable critics of 'Hume's Law', as it has been called, including Hilary Putnam, who argues that Hume makes an evaluative claim when making the distinction; it has also been suggested that Hume derives an ought from an is in making this claim (Baier 2010).)

Claims about musically aesthetic value, then, tend to be demarcated from claims about the empirical or theoretical. An account analogous to that which could be given for, say, the pleasure in a sweet drink on a summers day, cannot be given for aesthetic value for two reasons: (1), while the pleasure of a sweet drink can be explained by referring to the molecular structure of the drink and my body's biological need to maintain homeostasis, there is no analogous account of the survivalist or physiological mechanisms by which the musically aesthetic has value; (2), the pleasure in a sweet drink is not a moral or ethical issue– I do not take offence if you do not find such pleasure and do not demand that you agree that such a thing is pleasurable.

[102] See Cohon, 2010.

The following offers an alternative to this prevailing view of aesthetic value. While I accept (1) above, I reject (2)– that the value of the musically aesthetic is necessarily entangled in ethical or moral issues. Aesthetic judgements may demand universal agreement, but it remains that any such judgements rely, initially, on a subjective feeling. The nature of this feeling, I argue, can feasibly be separated from the moral aspect of aesthetic judgement. While I might be offended if someone were to suggest that the prelude of *Tristan und Isolde* is bland and uninspiring, and think that others *ought* to share my experience, it remains that the experience I had that convinced me of the value of the prelude does not itself rest on moral judgement but a subjective feeling.

The term 'normative' can be used in various ways, with the intended usage above having some prescriptive or proscriptive entailment: 'others should/shouldn't hear such-and-such in a certain way.' However, it is possible to relate an evaluation that is not prescriptive, like 'I prefer cycling to running' or 'that's too expensive for me.' Such statements do express value-judgements, but not of the sort that lay claim to universal agreement. While normative statements are also evaluative, we can distinguish a sense of evaluative that does not invoke a normative standard. As such, the issue of expressing a subjective feeling is distinct to the issue of making normative or moral statements. This is important since it permits that a judgement that something has musically aesthetic value may be based on a subjective feeling that is common amongst all those with similar psychology who bring a similar attitude, but that the tendency to be prescriptive plausibly stems from another feature of musical experience– most likely related to the significant role music can have in personal and social life.

The following takes a view on the subjective feeling on which aesthetic judgements are based, but not on issues connected with prescriptive or morally indicative statements. It is clear that aesthetic judgement has a normative aspect that can be understood in terms of taking a moral position on personal tastes, but such issues relate to social intercourse, reflecting culture and milieu: i.e., this aspect of an aesthetic judgement can be understood as of a wider *humanist* concern. However, I have developed a sense of the musically aesthetic that is not

humanistic in this way, arguing that the musically aesthetic can be understood with a psycho-acoustic model.

While the argument given below does not give an account of our wont to make *ought*-statements about the musically aesthetic, it does offer an account of the universality of judgement by invoking universal psychological processes. Under such a view, musically aesthetic value appears to be *intrinsic*: it is coextensive with the operation of nonconceptual psychological processes under certain conditions. We engage in perception without reason or understanding (without concepts) and the attendant experience is intrinsically valuable. The experiences of illusory movement that music affords are worth having purely in virtue of there being experiences of illusory movement: this value emerges from the human prerogative to ignore the survivalist or biological value of an environment and to merely be engaged. Music has been designed, cumulatively over the course of human history, to facilitate such aimless or reasonless engagement.

5.3 Understanding the terms *descriptive* and *evaluative.*

In his *Aesthetics*, Monroe Beardsley compared the term e*valuative* with *descriptive* and *interpretative,* where *descriptive* refers to non-evaluative statements concerning features of the piece and *interpretative* refers to some relation between the piece and something else. To say that Bjork's 'Unravel' has an ethereal beauty would be to make an evaluative statement, but to say that the vocal melody exhibits a high degree of metrical irregularity, such that accented notes almost never lie on the 1st or 3rd beat of the bar, would be to make a descriptive statement. If, on the other hand, I say that this music I am listening to is 'Unravel' by Bjork, the 2nd track from her 1997 album *Homogenic*, I am making an interpretative statement. The relevant distinction for this chapter is between evaluative and descriptive, since this distinction highlights a gap in a psycho-acoustic account of the musically aesthetic that implicates value as non-explicable or intrinsic.

To say that the descriptive and evaluative can be neatly distinguished is somewhat controversial. Putnam argued that all supposedly descriptive claims, even those made on the basis of strict scientific testing, are subject to distortion from the analyst's own normative criteria. Science is not value free, according to Putnam: 'values– epistemic values, such as "coherence," "plausibility," "reasonableness," "simplicity," "elegance" and the like– are presupposed in the activity of selecting scientific theories' (2002: 141.) That the descriptive and evaluative cannot be neatly distinguished is a persuasive point, but to suggest that it is wrong to make the distinction, or to assume that there are not any descriptive and evaluative terms, is a far more substantial step. Indeed, there seems little obstruction to *describing* certain of those value-laden terms Putnam cites. 'Simplicity' may just refer to a reduced number of elements relative to other theories, and 'elegance' may include 'simplicity' along with another condition like the feature of reducing a particularly complex phenomena, or giving a single feature several roles. That said, it should be clear that I am making certain assumptions about the neatness of the descriptive/evaluative distinction due to its utility in this discussion, and that a focused study of the distinction would bring up issues that cannot be properly dealt with here.

Insofar as the distinction between descriptive and evaluative holds, it must be given that the psycho-acoustic properties a phenomenal view identifies as musically aesthetic concern descriptive rather than evaluative features. The chief worry of calling these properties *descriptive aesthetic features* will relate to the aforementioned objection that psycho-acoustic properties cannot be counted as aesthetic, although the work of chapters 2 and 3 was to show that they can. A phenomenal conception argues that aesthetic and musicological issues can be explicated using models wrought through theories of psychology and perception; however, it is not clear how far this conception goes towards explicating *evaluative* statements about the musically aesthetic.

5.4 Giving a bespoke characterisation of musically aesthetic value.

Aesthetic value has commonly been understood in aesthetics and musicology through either the ascription or analysis of evaluative terms like *beautiful*, *balanced, unified* or *chaotic.* Such an approach is problematic since some of these words appear to be uniquely aesthetic evaluations and so cannot be described– e.g. *beautiful* or *ugly*– while others appear to entail a combination of both descriptive and evaluative elements.

Here I develop a distinctive approach by giving a fundamental characterisation of *value*; this is apt since it provides a characterisation that must be afforded any object that has musically aesthetic value while also drawing lines of circumscription much wider than the aesthetic: a*n object has value when acquaintance with it has the effect of motivating further acquaintance with it.* Such is, of course, a characterisation of value rather than of aesthetic value; it is not specific to music, art, or even human behaviour. Value in this sense cannot be culturally or morally contingent since it describes not just the value music has for a human experiencer, but the value the flesh of an animal has for a dog and the value pollen has for a honeybee.

It may seem that an account of musically aesthetic value understood in this way will be less instructive than an account that deals with exclusively aesthetic issues such as the tie between aesthetic value and art. Conversely, using the notion of motivating further acquaintance allows aesthetic value to be characterised in a way that does not presuppose it, and should also be uncontroversial. Such a characterisation does not demarcate a human behaviour, and so is in line with the approach so far developed that looks to avoid problems concerning Hume's Law and the fact/value distinction: the explanandum is clearly not normative. Characterising musically aesthetic value in this way does not in itself preclude that an account of musically aesthetic value might be humanistic, even if the account I offer is not; indeed it leaves room for any account that explicates this characteristic of motivating further acquaintance.

Musically aesthetic value, then, has been wrought above as a subjective feeling that can be separated from prescriptive or moral statements. While a psycho-acoustic account is powerful in explicating the descriptive aspects of the musically aesthetic, there is no evidence such an approach contributes to an account of musically aesthetic value. Rather than attempt to analyse evaluative terms like *beautiful,* laden in discourse and presumptions, I have sought the most basic characterisation of value, involving the notion of *motivating acquaintance*. By making no prior reference to the aesthetic or even to human behaviour, and by identifying a simple effect of value, this should be the easiest characterisation of value to explain: we have a subjective response that motivates further acquaintance.

With this definition in mind, it could be argued that musically aesthetic value is non-explicable: (I) the musically aesthetic, understood in terms of immediately perceivable properties, is explicable under a psycho-acoustic paradigm (II) the ascription of value to the musically aesthetic is justified and (III) the value of the musically aesthetic is not explicable under a psycho-acoustic paradigm; so, (C) musically aesthetic value is non-explicable; *intrinsic.* The following will examine the claim that value, when afforded a sense that does not imply normativity, is intrinsic to the experience of nonconceptual psychological processes.

5.5 Intrinsic, extrinsic and instrumental value.

To argue that the value of the musically aesthetic is intrinsic to the experience of psychological processes it is necessary to understand how aesthetic value is conceived more generally and in the literature. Three conceptions of value can be distinguished: *intrinsic, extrinsic* and *instrumental.*[103] The concept of *intrinsic value* is closely related to the concept of musical form, insofar as form is taken to denote the immediately perceivable properties of sound and intrinsic value to denote a value that is attendant with such properties. Intrinsic value is

[103] See Budd (1995).

commonly contrasted with *instrumental value*– the value a thing has as a means towards another thing, itself valued as an end. Another contrasting term is *extrinsic value*, which attributes the value to a source distinct from the object in itself. While all instrumental value is extrinsic, all extrinsic value is not necessarily instrumental.[104]

It can be argued that intrinsic value proper is obviously false. To ascribe value to the object in itself and for this value to persist intrinsically– i.e. without any external mediation– it would follow that the object has a self-sufficient value, irrespective of our involvement with it. This is not commensurate with our understanding of art as part of the human experience, the typical usage of 'intrinsic value' being to associate a mental state brought about through *perception* of the object in itself. In this sense, then, all aesthetic value is instrumental insofar as some human engagement with it is necessary, since in which case it can only serve as a means to an end outside itself (human experience).

Acceptance of this position leads to the unintuitive notion that only mental states can be valued intrinsically, given that mediation from perception renders value extrinsic (Korsgaard 1996: 263.) Indeed it might be feasible to extend this line even further and argue that if *I* do not identify absolutely with my mental states, given the background of my personhood, memories etc., then a pleasurable mental state is not strictly valued only in itself but for the enrichment of the person to which it belongs, thus qualifying as instrumental value. It may be that this thus becomes a terminological issue of little consequence. Even were it denied that value found in an object in itself is intrinsic, such objects would nonetheless sustain their sharp distinction from objects that are valued for being a means to an end outside themselves. The latter, let's say conventionally instrumental values, while mediated by extrinsic reference will also still be mediated by perception in the same way as conventionally intrinsic values. Indeed, all experience must meet this condition of mediation and as such the broad usage of 'instrumental' makes no instructive distinctions whatsoever.

[104] See Robert Stecker (2003).

It may be more instructive to assume that 'value' is relational, and has the strict condition of obtaining between an object and a person. On this view the broad sense of 'instrumental' can be treated as a confusion between something's having value and something's being valued: a feeling of pleasure or an affirmation of life is understood as coextensive with the realisation of value, wrought through perception. In which case, it is reasonable to make the aforementioned distinctions between instrumental, extrinsic and intrinsic value, with the caveat that value is realised *by someone*. But the humanist aspect of aesthetic value does not justify the ascription of intrinsic value to objects *over* experiences, or vice-versa: intrinsic value can be conceived as intrinsic to the experiences or objects even while being conceived as value *for someone*. The following considers how intrinsic value can be wrought through either an externalist or internalist view.

5.6 Criticising externalism about intrinsic value.

I argued in the previous chapter that the musically aesthetic can be distinguished as attention to immediately perceivable properties of sound that has value– where 'immediately perceivable properties' are understood as psycho-acoustic– and it seems the neatest way to understand musically aesthetic value is to tie it to experiences of psycho-acoustic properties as intrinsic value. However, the notion of intrinsic value can be used alongside an epistemic, representational, model to provide a defining characteristic of the aesthetic while maintaining either an abstract or more broadly externalist view. In order to defend the phenomenal position that only a psycho-acoustic conception will distinguish musically aesthetic value without presupposing it, it is necessary to criticise this approach where intrinsic value is integrated into an externalist view.

There are two approaches to such a view: a) intrinsic value is external to experience, attached to the descriptive aspect and so experience acquaints us with both the descriptive and evaluative; b) value is internal to experiences while the descriptive aspect is external, such that we become epistemically

acquainted with features of the object and in so doing have an experience that is itself intrinsically valuable. The amalgam view, b), was mentioned in chapter 4 when cited in Beardsley (1969), and has become well supported.[105] In his influential *Values of Art* (1995), Malcolm Budd provides a view that appears to drift between both positions, and so I will address the strengths and weaknesses of both views by using Budd's writing as a cue, arguing that intrinsic value cannot be accommodated either as a property of objects or in an amalgam of internalist and externalist ideas. Nb., henceforth I will use the following terms interchangeably: 'evaluative aspect' and 'value'; 'descriptive aspect' and 'structure'.

Budd claims that the "artistic value" of an artwork consists in the "intrinsic value of the experience the work offers', but this experience the work offers is one in which the individual *understands* aesthetic qualities by becoming *acquainted* with them.[106] This would seem, then, to be an externalist view of aesthetic experience in as much as emphasis is on understanding and the notion that a perceiver is acquainted with qualities of the object. However, it is somewhat open whether intrinsic value is given to have the internalist trait of being internal to experience rather than object, since while having an intrinsically valuable experience is dependent on acquaintance with objective properties, intrinsic value is nonetheless construed as attached to the experience rather than these properties themselves.

The view Budd offers could ultimately fall towards externalism about value and structure if the intrinsic value attributed to experience is taken not as a *sui generis* quality of experiences but rather as a representation of the properties of the object, and he does give some indication towards this view. He contends that a work 'does not have a nature specifiable independently of the nature of the work' (Budd 1995: 4,) although this terminology carries some ambivalence given that he also intimates that the 'nature of the work' may feasibly be dissociated

[105] Advocates of internalism about value and externalism about aesthetic structure include Budd 1985 and 1995, Goldman 2006, Walton 1993, Levinson 1996 and 2006, Miller 1998, Railton 1998, and Iseminger 2004.
[106] See Budd 1995: 4; 12.

from the work. The stronger claim would be that a 'work is not specifiable independently of that work'.

Indeed, there are arguably flat contradictions with Budd's founding notion of 'intrinsic value of the experience the work offers' apparent when this position is being defined:

> It should be remembered that the experience a work of art offers is an experience *of the work itself*, and the valuable qualities of a work are qualities *of the work*, not of the experience it offers. (ibid: 5)

However, this apparent contradiction might be resolved by attributing different values to the artwork and the experience, a line Budd pursues to a limited degree with the term 'artistic value', intended to denote the value ascribed to the object particularly– even if, as noted above, this value is said to consist in the 'intrinsic value of the experience the work offers'. Later passages go towards disrupting the distinction between an object's 'artistic value' and an experience's 'intrinsic value' but it will be instructive, by way of providing an example, to first uphold the distinction and treat this view as externalism about the descriptive and evaluative, where the artwork's value is considered intrinsic and represented as such.

This position can be challenged by noting that were the intrinsic value of the aesthetic a represented property of objects it follows that the representation of such value will be true or false, and that the experience is thus contingent on *correct* perception of the value that lies within the object. Such is a key aspect of Budd's argument, positing as he does the condition that 'If you find the work intrinsically rewarding *and you are right to do so*, then the experience it offers is intrinsically valuable' (pp.12-13 emphasis added.) The intrinsic value of the experience is subject to externally governed criteria accordant with the value of the work, by which rights an experience can be right or wrong.

It is the question of how such externally governed criteria can be designated that is crucial, since such designation seems to rely, at bottom, on intuition. Granting, as Budd does, that the conditions for correctness of aesthetic perception are determined by consensus amongst experiencers– a consensus that could alternatively be conceived as Hume's 'true critic'– intrinsic value appears a component of aesthetic perception itself since no referent for intrinsic value can be determined that is prior to the experience of intrinsic value.[107] In other words, without conceding that the prior identification of intrinsic value is made by experiences of intrinsic value, and to echo a common objection to Hume's 'true critic', appeal to a consensus amongst experiencers in designating intrinsic value in aesthetic objects leads to the circular reasoning that the intrinsic value of artworks is identified by consensus amongst critics, but critics identify intrinsic value by critical consensus. Due to this circularity, appeal to externally mediated criteria as the primary means to identify intrinsic value is deeply problematic. The prior identification of intrinsic value is made through experience with immediately perceivable properties rather than by reference to a shared criterion.

5.7 Externalism about the descriptive and internalism about the evaluative.

On an alternative reading of Budd (1995) intrinsic value would be attached to the experience where the experience is wrought through epistemic acquaintance with the artwork. The following suggests this position:

> It is the nature of the work that endows the work with whatever artistic value it possesses; this nature is what is experienced in undergoing the experience the work offers; and the work's artistic value is the intrinsic value of this experience. So a work of art is valuable as art if it is such that

[107] See Hume's 'Of the Standard of Taste'.

> the experience it offers is intrinsically valuable; and it is valuable to the degree that this experience is intrinsically valuable. (p.5)

The value of the experience of art is, on this view, central in understanding aesthetic value, but this is a value that obtains through perception of the work's 'nature'. This 'nature' 'endows the work with… artistic value', and the experience is valuable *insofar as* it is an experience *of* the 'nature of the work.' This then is externalism about structure and internalism about value. An amalgam view such as this might deflect objections to externalism by tying the descriptive to the evaluative, where the evaluative is intrinsic. The qualifications of Budd's use of the term 'intrinsic' now become relevant to appraising such a view.

'Intrinsic value' is intended not to denote a value dependent on 'internal properties' (ibid), and as such is not to be contrasted with 'extrinsic value,' a value transpiring through relations to other things. In short, Budd does 'not assume that something's intrinsic value is dependent solely on its intrinsic nature' (ibid.) Rather, intrinsic value is here opposed to *instrumental* value, the value of the effects aesthetic experience has on people beyond itself. This invites the question of what might exemplify an embodiment of intrinsic value of the relevant sort. Examples given include 'the invigoration of one's consciousness, or a refined awareness of human psychology or political or social structures, or moral insight, or an imaginative identification with a sympathetic form of life or point of view that is not one's own… such benefits contribute to making the experience intrinsically valuable and partly constitute the ways in which it is so' (p.7.) The distinction that concerns Budd then, is that between a consequential, or instrumental, *effect* of an experience of an artwork, and that experience itself– with the significant qualification that the experience itself may have extrinsic value in the sense of a value that transpires through relations to other things (invigoration of consciousness etc.).

The key problem with this treatment is that the notion of 'intrinsic value' becomes defeasible when reconciled with the extrinsically grounded experiences ascribed. It is unclear how the work is not 'specifiable independently of the

nature of the work' if it is the case that the nature of the work might be something extrinsic like providing insight into human psychology, since there is nothing to say that such insight could not be gleaned from another type of thing. This extrinsic reference will be subject to the same objections given in chapter 3 concerning externalist approaches. Insofar as aesthetic value is identified with a particular content not co-extensive with experience itself, distinct modes of presentation will afford identical aesthetic value, thus contravening what I called the supervenience thesis.

Indeed, Budd acknowledges the problems relating to the supervenience thesis in a discussion of the 'communication doctrine' of art, explaining that a popular approach has been to conceive of art as the communication of the artist's experience. Were music the communication of experiences, sound itself would be a vehicle for the 'message' of music, and, in a similar way in which the vehicle that communicates a verbal message (be it spoken word, written word, Morse code, semaphore etc.) is distinct from the message itself, the sound of music would be distinct from its aesthetic 'message,' the upshot being that different media could act as vehicles for the same aesthetic value. This, as Budd argues, is unacceptable:

> [T]he communication conception of artistic value misrepresents the importance of the experience of the work, crediting it only with an instrumental role in the production of what is valuable in the experience of art, rather than locating the reward in the experience itself. (p.15)

This then is a reiteration of the point that a piece of music cannot feel the way it does unless it sounds the way it does; it will not be valued in the same way if it is perceived, say, visually, or is expressed through some theoretical analysis. Music, in whatever sense it is immediate experience, is auditory. Budd makes this clear:

> Our attachment to the works we value as art is an attachment to the very experiences they offer, not to something detachable from them. To

> appreciate the value of a work of art it is necessary to undergo the experience it offers. (p.16)

It could be queried how this position can be occupied without also endorsing the view that intrinsic value is tied to immediately perceivable properties.

Budd's examples of extrinsic values given earlier could be dismissed by the same argument given against the 'communication conception.' Indeed, the remit of this argument is not limited to the notion of messages being transferred from artist to audience– it includes any framework where aesthetic value can plausibly operate independently of its respective experience. The examples Budd gives above include 'moral or political insight' and 'the invigoration of consciousness', but such values cannot be aesthetic as long as they may be dissociated from the experience of a particular artwork. And it is not clear how 'moral or political insights' could be inextricably attached to an experience of a particular artform, insofar as said insights relate to the abstract conceptual schemes of morality and politics. Even as loose a notion as 'the invigoration of consciousness' seems to float free of an experience of a particular kind of aesthetic object– could consciousness not be invigorated analogously with another object that functions analogously, like drugs or sex?

Any form of externalism contradicts a truism of music experience, that it supervenes on the way music sounds. If the way a piece of music sounds is altered, the experience of it is altered: two artefacts with identical epistemic contents but distinct sonic properties will be distinct in their aesthetic value. This is why the formal qualities of sound are essential components of music, and why theorisation of music starts at the level of formal structure.

This claim about the musically aesthetic *supervening on* formal qualities is not equivalent to the claim that all musically aesthetic qualities are formal qualities. Supervenience is a relation of dependence, but not a *reductive* one: a formally-perfect rendition by a tribute band is still aesthetically different to a performance by the original band. The idea of supervenience is that two such formally

identical pieces can have be different aesthetically, but that the aesthetic experience of either performance is nonetheless determined by its formal (psycho-acoustic) qualities given that if those qualities were altered in any way– e.g. to result in an imperfect performance- the aesthetic experience would also be altered.

A primary argument of this thesis is that the formal qualities of sound should not be understood as operating under the rules of their own domain, or that of the epistemology of a person or persons, but that they should be understood as physical properties of sound that provide conditions for psychological mechanisms to operate. This section has argued that intrinsic value cannot be understood as external to aesthetic experience, nor can it be understood as internal to experience when aligned with an externalist view of aesthetic structure. The available position is thus that musically aesthetic value and structure is internal to experience. The following section argues that musically aesthetic value, in being intrinsic to experience, is non-explicable.

5.8 Musically aesthetic value is non-explicable: analysis of research from psychology, musicology and aesthetics.

Image schemata provide a successful model of music perception for a number of reasons, chief among which is that they explicate a well-reported intuition concerning musical movement by linking it with the non-musical world of psychology. However, while the image schemata model seems to link the descriptive aspects of musical movement with psychology– like the sense of compulsion towards a tonic or balance of phrasing– there is no account of how the operation of image schemata themselves are intrinsically valuable. The structures themselves are value-neutral: I might use the path schema to describe myself as being on a path to success or conversely on a path to demise; I might lament a relationship that goes through cycles of painful separations and reconciliations or alternatively I might describe my progress in doing a PhD as cycles of activity and repose. The meanings these structures afford are free to be

emotionally positive, negative or neutral; to make sense of music experience as a kind of mapping of image schemata, value needs to be added into the explanation *ad hoc*.

The ecological perception of music perception can be characterised in similar ways. The model is explanatively powerful since it explains a much-reported effect of music– a sense of movement– in a precise way, by linking particular properties of sound to particular behaviours through clearly defined mechanisms, namely those of personal and evolutionary development. However, the spatial features specified by ecological theory lack an object or concept– for example, increase in high-frequencies and dynamic specifies approach of a sound source, but the nature of the sound source is undetermined. Given that what is moving is central to the way any experience of movement is valued, such an account, while explicating the sense of approach music can engender, does not explain why we should be motivated to experience such an effect.

What motivates a listener to engage with music is an aspect of what Zbikowski calls the *meaning* of music. While he provides an account of a fundamental aspect of music perception– grouping into categories– these categories, such as 'motivic forms of Beethoven's fifth' have no object or concept; they are composed of discrete sounds. Zbikowski acknowledges this gap, suggesting that musical meaning is transcendent or otherworldly: 'Musical concepts are of another world, another order, because they extend into a domain that is beyond words' (2005: 326.)

This *transcendent* view of musically aesthetic value is prevalent today, with a lineage that traces back to Hanslick's arguments on autonomy of form in *The Beautiful in Music*. Themes of such a view are protection and exclusion, where the musically aesthetic is taken to be superlative in such a way that it cannot be accessed for scientific study or any broader non-musical understanding. Hanslick is an archetype of this line of thought: only instrumental music can be beautiful; only geniuses (born in a particular part of the world) might make beautiful

music; only the highly expert can experience beautiful music; and, of course, music must be *beautiful.*

Many of the hegemonies and elitisms central to Hanslick's ideology have become distinctly unattractive to contemporary writers, although the kernel of this argument maintains significant support. The conception of a superlative musical meaning has been robustly defended, and it could be argued that the potential to occupy this position suggests that current thinking on music's aesthetic value leaves space for it. Consider the words of Roger Scruton, given at a conference on the (non-)possibility of a scientific account of music:

> It is obviously the case that advances in the neurosciences have begun to impinge upon what for me was a sacred and protected territory [music] and one has to, as it were, heed the call to rush to the boundary to defend it[108]

This view also emerges beyond aesthetics, in musicology. Jim Samson, a musicologist who has written on the transcendentalist doctrine, nonetheless appeals to an exclusivity of meaning to fill the gaps in our understanding:

> Music, it might be argued, is so utterly and irreducibly specific, its meaning so embedded in its essence, that we are forced to borrow from other systems of thought in order to attempt any kind of description at all. (Samson 1999)

Samson had tacitly opposed himself to the traditional transcendentalist position in the same paper, but still sees exclusivity in this, less extreme, form as justified.

Indeed, appeals to music's closure pepper the inter-disciplinary terrain. Examples can be found in analytical musicology, psychology and even modernist thinking. John Cage, a fierce opponent of the tenets of enlightenment aesthetics, still dismisses explanation in favour of a thesis on sound's intrinsic properties.

[108] Scruton, 'Can there be a Science of Musical Understanding?' (2011).

Cage wishes to eliminate the composer, human control and expression from music, but in so doing makes much the same claim as Hanslick does– to 'let sounds be themselves' (1961: 12). The value of music is, for both, contained exclusively within the sounds themselves.

Transcendentalism is a response to an explanatory problem about music, namely that it is unclear why we do it. It is the absence of clear reasons for musically aesthetic value that drives the view of an exclusive musically aesthetic domain to that is theoretically closed. It is the division between aesthetic experience on the one hand *and everything else a person can do,* on the other, that has fuelled the elevation of music, the idolization of certain musicians, and the rejection of musics that do not fit the requisite ideological expectations.

While this explanatory problem of musically aesthetic value motivates claims of a transcendent value that critically limits our understanding, it can also be said to prevent those working in analytical or empirical music-studies arriving at a consensus as to what is most valuable about music. A set-theoretic analysis of a particular piece will be disposed to generate a practically limitless range of relevant relational structures,[109] whereas a Schenkerian analysis will reduce the points of significance in the same piece to the primal structure, or *Ursatz*, which will be constituted by a very limited set of notes and will abstract away from most of the piece's detail, including rhythm and instrumentation. Similarly, an ethno-musicologist will tend to shy away from talk of universals in music, possibly citing the fact that many African languages have no word for music,[110] while experimental psychologists working in perception may cite certain characteristics such as preference for low-integer ratio intervals and the development of expectancies as cross-cultural universals.[111] It is clear that what counts as significant for a model of music will reflect the particular concerns and predispositions of the discipline, the sub-discipline and the scholar who is using it, and that any determination of musically aesthetic value will be hostage to global and subjective factors.

[109] See Cook (1994).
[110] See Jacqui Malone 1996: 10,11.
[111] See Steven and Byron 2009.

Value is not a major research topic in contemporary music-psychology.[112] It may appear that neuropsychology, as the newest empirical science of the mind, will ultimately bring an account of musically aesthetic value, however there has been little progress thus far. Salimpoor et al. (2011) have used brain-imaging techniques to link reports of intense pleasure given by the listening subject to the release of dopamine in the brain, and have also correlated these peak responses with other physiological data such as changes in heart-rate. While research like this might have significant value from a neuroscience perspective, it does not give us an account of how *music* functions to produce value, but rather confirms *that it does* in a way that does not depend on subjective report.

It could be said that musically aesthetic value is a *contingent fact,* given that the aggregate explanation of the sense of musical movement provided by all those musicological and psychological models hitherto considered, while offering detailed description, is independent from the fact of the experience of musical movement being valuable. Musicologists have rich and complex analytical models that give description to musical structure in terms of relationships between parts. Similarly, psychologists have found music to be fertile ground on which to employ various psychological models, suggesting that music is anything but closed to analytical approaches. However, as has been suggested by the discussion of image schemata, ecological theory and cognitive categorisation, the available account of musicological and psychological function explains only the descriptive aspect.

The view of musically aesthetic value I am developing here– of a non-explicable component of experience that emerges as a contingent fact– parallels the problem of experience that has occupied philosophers of mind particularly over the last few decades, since Thomas Nagel's paper 'What is it Like to be a Bat?' (1974). While we might ascribe all sorts of behaviours or physiological attributes

[112] There being no papers on musical value in the recent major collection, *The Oxford Handbook of Music Psychology* (2009), nor the similarly major and recent joint music-psychology conference, *ICMPC-ESCOM 2012.* ('The 12th International Conference for Music Perception and Cognition and 8th Conference of the European Society for the Cognitive Sciences of Music.').

to bats, and we may come to understand how a bat works in an environment, the subjective quality that characterizes the bat's experience is left out of the description. Imagining myself hanging upside-down, using sonar rather than vision and flying rather than walking, is not really giving me the bat-experience, since, '[i]n so far as I can imagine this (which is not very far), it tells me only what it would be like for me to behave as a bat behaves. But that is not the question. I want to know what it is like for a bat to be a bat' (p.439). When we understand all of what Nagel calls the *objective* facts, the subjective quality of experience is unaccounted for. In music we can understand this subjective quality as having *value* in the sense that we are motivated to seek it.

The problem of experience has variously been called the *hard problem of consciousness* (Chalmers 1995) and the *explanatory gap* (Levine 1983), and it relates to how we conceive of the subjective quality of experience– sometimes called *what it is likeness*, *qualitative feels* or *qualia*. Once we have explained away the *function* of all other aspects of, say, the visual perception of red, there is something about the experience of redness that appears contingent (where *functionalism* is the doctrine that all mental states are reducible to causal roles In the production of a system's behaviour (Chalmers 2003.)) As the neuroscientist Jeffrey Gray claimed:

> given that there is a scientific story that goes seamlessly from sensory input to behavioural output *without* reference to consciousness then, when we try to add conscious experience back into the story, *we can't find anything for consciousness to do.*[113]

David Chalmers (1995) suggested that this problem is hard because the best cognitive psychology can do to explain the mind is to give accounts of function, and qualitative conscious experience is not functional in nature. Chalmers urges that when cognitive psychology has done the work of explaining various mental phenomena, such as the ability to discriminate, categorise or report, the problem of experience will remain, untouched. Indeed, one of Chalmers' most influential

[113] Gray 2004; 40, his emphasis.

arguments has been that, were conscious experience eliminated from the picture altogether, nothing in the functionalist story would need alteration. This suggests that beings with identical functional states as ourselves could well exist without having consciousness.[114]

It is instructive to note that musically aesthetic value is an experiential phenomenon that demonstrates the same explanative contingency. Our analytical frameworks depend on musically aesthetic value only in the humanistic sense that if it were not for its experiential value people would not be interested in analysing music; but this expresses the question of why this value obtains, rather than the solution. A psycho-acoustic conception proffers an account of central experiential effects of music– such as the sense of movement and the relation between sound and *tone*.[115] But this conception has no bearing on the fact of intrinsic value: if we were not motivated to listen to music but were instead coerced into listening to patterns of sound by an evil genius, it is unclear how our understanding of these central experiential effects would change. It is reasonable to assume that the perception of illusory objects in motion might just as well be disorienting and disturbing. The concept of intrinsic value can be omitted from our account, since it has no evident functional role.

5.9 Summary.

Transcendentalism is the view that musically aesthetic value is a *sui generis* superlative kind, such that any attempts to understand it in non-musical terms are ill-founded. This view, I have suggested, proceeds from an apparent absence of reasons given for musically aesthetic value, both for the experiencer and the analyst. The subject's engagement with music consists in nonconceptual processes that do not operate on a personal level, however a third-party is at liberty to conceptualise aspects of his engagement with appropriate analysis.

[114] Known popularly as the *zombie argument*, see Chalmers 1996; also called the *conceivability argument*, see Chalmers 2003.
[115] In Scruton's sense, see chapter 2.

While this third-party analysis can render a detailed account of the experience of music– as argued in the previous chapters– the analytically accessible aspects of experience are– as argued above– descriptive rather than evaluative, and the motivation behind transcendentalism comes not from any metaphysical doubts over the description of structural aspects– possibilities of which abound– but rather from difficulty squaring these aspects with valued experience. A value that is inexpressible, that is without obvious grounding, provides a rationale for arguments that elevate music. The cause to engage with sound aesthetically is the insoluble issue to which the view of a domain-specific superlative music provides some commentary.

It is important to dissociate the transcendentalist claim, (i)– music's aesthetic value is a superlative kind specific to a domain to which a listener becomes acquainted– from the claim, (ii)– that musically aesthetic value is non-explicable. I have argued that (ii) is the primary motive for (i), suggesting that arguments for (i) imply (ii), serving as reports on the absence of reasons for music's aesthetic value. While (ii) drives claims for (i), as it does for transcendentalists, it can also motivate the phenomenal view: music's aesthetic value is intrinsic to the experience of nonconceptual processes pertaining to music perception. While arguments for (i)– the transcendental– imply (ii)– an absence of reasons– the reverse is not the case: (ii) might support the view that value is intrinsic to experience in such a way that does not imply a specifically musical domain. I have argued that (i)– insofar as it entails a conception of an abstract domain– fails as an account and in so doing supports a phenomenal view.

5.10 Inter-subjectivity: The universality of the perceptual apparatus and dealing with appropriateness of response.

An important issue for conceptions of musical experience is the *inter-subjective* feature of value– the tendency for particular pieces of musical sound to provoke a common valued experience amongst groups of people– and, relatedly, the manner in which responses to such pieces can appear appropriate or

inappropriate. Claims to normativity of aesthetic value were discussed above, whereupon universal agreement is *demanded* of aesthetic judgements, but it is reasonable to eschew these issues concerning prescriptive statements and consider the basis of inter-subjectivity just in how it proceeds from a subjective feeling. Externalists can fairly easily account for the inter-subjective quality of musically aesthetic value by invoking the concept of *understanding*: listeners may share a common response because they come to know the same properties of the object; this understanding involves becoming acquainted with a shared conceptual framework the object references or represents. The fixed nature of the object, and the concepts it represents, reflect the fixed nature of the experience all those suitably encultured may realise.

This section challenges this externalist viewpoint by criticising Budd's view on a pertinent element of Kant's aesthetics. I will argue that (1) inter-subjectivity does not imply *understanding*, and that (2) the inter-subjectivity of response concerning musically aesthetic value can be attributed to the psychological consistencies amongst experiencers, in line with Kant's framework but contrary to Budd. It is the aim of this section to show that the view that inter-subjectivity of aesthetic response consists in nonconceptual processes rather than understanding is coherent, but the following section will go further by demonstrating how free descriptive statements in the musicology literature can be tied to their respective analytical representation in the score using the psychological models of nonconceptual perception discussed in chapters 2 and 3.

I argued in chapter 3 that Kant's theory of aesthetic judgement can be called *psychological,* given that it conceives of aesthetic judgement in terms of a model of psychology that extends beyond the aesthetic. Central to this model is the notion of a *free play* between the imaginative and conceptual faculties of the mind. One of the aims of Kant's conception was to account for the 'universality' of aesthetic judgement by recourse to the fixed properties of the mind as they relate to the fixed properties of the object (§§6–9.) Budd counters this claim, suggesting that the uniqueness of one's past experience is evidence that aesthetic experience will diverge between individuals:

> '[E]ven if, as is not so, each of us had the same natural endowment at origin, we have been shaped by our pasts in innumerably different ways, in ways that, leaving aside the different desires and sensuous preferences engendered in us, might find expression in the different kinds of objects that delight us– in the forms we experience with delight, the forms that seem to us peculiarly well suited to exercise our perceptual powers on, independently of any other interest. (1995: 28)

It should be acknowledged that an individual is shaped by her ontogenetic past, but this does not preclude invariance in psychological mechanisms. We may each live different lives while having a shared psychology. This is most obvious when considering universals in audio perception, such as greater sensitivity in the range of 2000-5000Hz, having evolved as a response to the range of human speech (this sensitivity is reflected in the tendency for melodies to occupy the same range), and the tendency for sounds having the same frequency bandwidth to mask one-another (good music producers work to eliminate this masking.)[116] Aesthetic responses are not utterly folded into personal life-experience: research in psychology has provided a range of models on how we *all* tend to perceive formal qualities (see chapters 2 and 3).

Budd opposes Kant's view that aesthetic value emerges from a particular psychological process by attacking claims extending from the universality of aesthetic judgment. Budd takes issue with certain of the concepts of Kant's framework for universality: aesthetic judgements are given to be communicable insofar as an *optimal value* of free play obtains between imagination and understanding that thus engenders an experience of aesthetic value. It is this optimal value that makes Kant's account intelligible by providing a point of commonality across individuals. Since all our cognitive faculties are broadly the same, the optimal relation between imagination and value by which aesthetic pleasure is achieved should also be broadly the same. The issue with this is that

[116] See Stainsby and Cross, 'The Perception of Pitch' 2009 for a discussion of the psychophysics of bandwidth masking; for a discussion of universals in the psychology of music see Meyer 2000; also see Stevens and Byron 2009; 16.

there are no guarantees that such an optimal value does obtain in the manner that Kant describes. 'Kant merely asserts that, in each person's case, there must be an optimal value for the relative proportion of imagination and understanding for perceptual judgement, rather than more than one such value or none at all. But this is a substantial claim, not a trivial truth, and without support it lacks plausibility.' (Budd 1995: 32)

The notion of 'optimal value' within Kant's framework may prone to objection; it seems unclear since the concept of free play between imagination and understanding is obscure. However, a concession that Kant's theory is flawed would not in itself support an externalist view of aesthetic value, but rather weaken the idea of a free play between imagination and understanding. Insofar as the 'free play between imagination and understanding' is intelligible as a mechanism for aesthetic pleasure, it would also be intelligible that the optimal proportion between them was intersubjective, since imagination and understanding are themselves intersubjective faculties (insofar as they are mental faculties). Budd's arguments focus on the relatively obscure ideas of 'optimal value' and 'free play' without addressing the more robust claim on which they are based, concerning similarities in our cognitive apparatus. As such he casts no doubt on the claim that the commonalities in psychology can support commonalities in experience without reference to the epistemic character of the object, central to an internalist view.

The obverse of the inter-subjectivity of aesthetic value is that certain responses to an artwork seem more *appropriate* than others. Such claims to normativity direct towards a view that aesthetic experience is dependent on a form of *understanding*, since the most appropriate responses can thus be attributed to greater understanding, where this in turn means having greater knowledge of some shared conceptual framework. However, it does not follow from the claim that aesthetic responses can have different degrees of appropriateness that aesthetic responses entail understanding. It is plausible that the relation between the experience and the object is of a different kind to understanding.

There is an important difference between the claim that aesthetic experience is appropriate to the properties of the object and the claim that aesthetic experience consists in understanding the properties of the object; correlatively, there is an important difference between the claim that a certain aesthetic experience can be understood or justified and the claim that aesthetic experience consists in reasoning. The difference pertains to that between first– and third–person viewpoints. We might say of an aesthetic experience that it is not as appropriate a response to a particular artwork as another experience might be, and we might proffer reasons as to why; but this does not therefore ascribe such reasoning to the experiencer. It is plausible that the experiencer is related with the object in a nonconceptual way, a way potentially in conflict with her understanding of the properties of the object. Indeed, listeners do rely heavily on virtual– or illusory– effects of artworks for aesthetic experience, as was discussed in chapter 3. There is a disparity between belief and aesthetic experience, such that aesthetic experience is not based in veridical perception of properties of the aesthetic object. Aesthetic experience, rather, depends on an individual's potential to subvert real-world truths in favour of the engagement of her own psychology.

There are two available positions on the inter-subjectivity of musically aesthetic value, then: (A) we come to understand features of the aesthetic object in their relation to a shared conceptual framework and (B) the experience is nonconceptual and can contrast with the experiencer's understanding of properties of the object. Budd argues for (A) by conflating correlation with understanding: the response to an artwork might be constrained by the properties of the artwork, and thus it could be said that certain responses are appropriate while others are not, but this does not in itself suggest an epistemic attitude. There are innumerable ways in which the world is perceived without understanding, and indeed experience of music is often difficult to capture with concepts; giving reasons for the experience one has requires work, certainly for those without musicological training.

A note on Budd's formulation of the externalist view: this is a subtle version of the view, but nonetheless poses problems by falling foul of the supervenience thesis. It also contradicts the criteria set at the beginning of chapter 4, by failing to circumscribe the aesthetic. By describing aesthetic perception as epistemic acquaintance, there appears no utility for distinguishing aesthetic perception, leaving open the charge that any form of understanding is aesthetic. If aesthetic experience is *understanding*, it lacks adequate circumscription, but if it is a kind of 'aesthetic understanding' then the question begged is just what makes it 'aesthetic'. As Gary Iseminger suggested, 'the entire account is hostage to a prior understanding of the concept of art' (Iseminger 2003: 108.)

5.11 Analysis: nonconceptual psychology beneath free conceptual description.

I have argued that our experience with the musically aesthetic is based on nonconceptual psychology, that the value of the musically aesthetic is intrinsic to experiences of nonconceptual psychology, and that the inter-subjectivity of this value is attributable to our shared perceptual apparatus. The descriptive aspect of the musically aesthetic can be accounted for with a psycho-acoustic account but the evaluative aspect cannot. Our shared nonconceptual psychology accounts for the possibility of hearing value in the products of alien music-cultures, for inter-cultural creativity and production, since our nonconceptual mechanisms are common across cultures in a way far removed from our conceptual frameworks.

While listeners are apt to agree on musically aesthetic value, they are not apt to express the same conceptual descriptions of musically aesthetic value: expressing a preference for a piece is very different to describing a preference for a piece. The following section supports the view offered here that value is intrinsic to experiences of nonconceptual psychological processes by tracing free conceptual descriptions, which will entail evaluative as well as descriptive claims, to the operation of nonconceptual psychology.

Given that our experiences with music are nonconceptual we are given no concepts to ascribe to the object. However, certain conceptualisations seem appropriate, and this appropriateness can be understood by linking conceptual descriptions with nonconceptual psychology. By demonstrating that intuitively appropriate conceptual descriptions of musical passages are based on nonconceptual psychology that is also linked to the musicological description, this analysis should show that the inter-subjectivity of aesthetic response is closely related to nonconceptual psychology.

5.12 Alan Moore's 'Where is Here?'

'Where is Here? An issue of deictic projection in recorded song' by Allan Moore uses the ecological principle of specification and image schematic theory, in conjunction with conventional analysis, to evaluate popular music.[117] Referring to 'Sea Breezes' by *Roxy Music*, Moore states: "[t]he track's environment is… vital in its colouring of the ambiguity of the lyric through four specific devices. The first is the plaintive oboe melody… of the sort frequently described as 'desolate'. The second is the bare electric piano which meanders (with little sense of harmonic goal) through the same limited selection of pitches, analogising sea breezes…" The further two points are not so amenable to scrutiny, but those given above are instructive. A melody played on an oboe might be construed, by ecological principles, as specifying a limited volumetric space, by virtue of its thin texture. The purity of the sound, i.e. its likeness to a sine wave, could specify simplicity– a focused source that goes undistorted, undisturbed by external forces; isolated. Hence the descriptor 'desolate.' Thus, even without reference to the recording, Moore's remarks can be elucidated by explicating the underlying psychological mechanisms at play on perception of the pertinent sounds.

Image schemata will also be operative in the experience that informs Moore's interpretation: How does the 'meandering' and 'limited selection of pitches' in

[117] Alan Moore 2010.

the 'bare' piano part 'analogise' sea breezes? This may be less transparent than the other description, but it seems that the limited exploration of pitches coupled with the implied repetition would suggest the *containment* schema, and the metaphor of a 'meander' could share with the musical materials the *wave* schema. So the coupling of *containment* and *wave* schemata may be evident in, or frequently related to, typical conceptions of a sea breeze, taking into account the relentlessness of the wind, a person's situation in relation to it as being surrounded and engrossed by it (contained), and also of the continuous fluctuation in ferocity– moving between peaks and lows. Once the sound-scape of waves washing up on the shore is accounted for– a part of the track mentioned by Moore shortly after the quoted passage above– the implication of the wave schema becomes quite clear, and its role in Moore's musical experience is reified.

Subsequently Moore discusses the track 'You've got style' by the band *Athlete*, isolating a passage in the track that 'uses a… slow vibrato and a heavy, claustrophobic texture… the signification is given in the repeated lyric "it's getting hot in here"'. A clear link between the properties of vibrato and excess heat is the *wave* schema. I experience waves of air convection when the space around me is particularly hot; likewise the fluctuations in pitch associated with vibrato has the structural properties of a peak and trough of frequencies, where the sound climaxes and withdraws repeatedly.

The concept of a 'heavy, claustrophobic texture' lends itself to elucidation by ecological theory. A proliferation of instruments with broad frequency bandwidths will fill the range of human hearing, specify a number of sound sources and thus a 'busy' environment, replete with sound, hence the concept 'claustrophobic'. The prominent bass– with a distorted and heavily compressed timbre– also specifies 'weight' or 'largeness' ('heavy'), since low sounds naturally emanate from the vibration of relatively large objects, with significant power required to start the object's vibration.

5.13 Scott Burnham's 'How Music Matters'.

'How Music Matters: Poetic Context Revisited'[118] by Scott Burnham reviews a number of poetic accounts of music, partly to demonstrate their descriptive validity, and partly to indicate the contrasts and relationships between theory and poetics. He points out a number of particularly striking elaborations by musicologists, and traces them back to formal musicological theory. Burnham's own discourse is often poetic and as such relates highly idiosyncratic descriptions, but his more general estimations, regarding the value of particular passages or pieces, are aligned with the canon. This tension between understanding and value reflects the condition of music-studies: conceptual elusiveness coupled with broad consensus on value. The phenomenological view predicts that Burnham's free descriptions should evidence the same nonconceptual psychological mechanisms that underlie the formal representations to which they refer.

Consider his conception of a passage of Beethoven's fifth symphony: 'the music's sails fall slack after having ventured into a windless, quietly ominous stretch of F sharp minor.' Drawing a comparison between the concept of a yacht and a piece of music might seem obscure at first glance, but few would find any problem in perceiving the underlying, schematic structures that are shared between a typical experience of the music and typical knowledge of a yacht, and as such Burnham's metaphor appears coherent. One of the image schemata that may be operational here is the *compulsion* schema, even if the link between the music and the concept is this schema operating in a negative way, imposing an absence. Where what might be described as a *force* is required in wind so as to fill the sails and move the boat, what might also be described as force is purportedly absent from the music: no progress, direction or energy is ascribable to this passage. This schematic structure derives from bodily experience of what can be called compulsion, and can be said to characterise both the poeticism and the formal representation.

[118] How Music Matters: Poetic Content Revisited," in Rethinking Music, ed. Nicholas Cook and Mark Everist (Oxford: Oxford University Press, 1999), 193–216.

Consider again the last quotation. How can music be ominous? Burnham expands on this characteristic: "the recapitulation is heard to *impend*: its arrival becomes a matter of dramatic urgency." 'Ominous' could refer to apprehension, or expectation. Both of the immediately prior quotations imply that Burnham hears the pertinent passages as forecasting forthcoming events. This is a listening attitude into which the model of cognitive categorisation gives some insight by explicating musical syntax with psychological function. Zbikowski discusses how any specific piece will tend to conform to a 'global model' (Zbikowski: 2005, 47). A global model can refer to the stylistic norm the piece abides by. In the case of the structure of Beethoven's fifth symphony, the normative paradigm would be that of sonata form. A listener suitably encultured in traditional Western music will most likely come to expect a repeat of earlier material around three-quarters of the way through the piece, after a series of other structural changes that are relatively coherent with the global model. Once the listener has implicitly applied a particular global model, she will adopt an attitude towards the piece that reflects expectations pertaining to this model. Global models can also entail generic musical properties. For example, the listener's response to the developing music may be constrained by his perception of recurrent large-scale structural patterns. So, when I hear the quiet and indecisive passage of music constituting the re-transition of the Finale of the Fifth symphony, my experience is likely to be in part constituted by consistencies in my previous listening experience, and may engender the expectation that a loud, emphatic section is forthcoming. Such expectations can constitute experience without being conceptualized.

On page 206 Burnham discusses a poetic depiction of the *Scherzo* theme in Beethoven's Fifth Symphony given by the novelist E. M. Forster:

> Helen notes that it is "as if the splendour of life might boil over and waste into steam and froth". This is not an inept assessment of the way the dominant is presented at this point in the development… [T]his dominant is reached climactically, in bar 132, and it sounds as the issue of the entire development. But instead of leading to the tonic of the recapitulation, as

> one might reasonably expect of a dominant re-transition, this dominant is itself tonicized… and then prolonged by a process of arpeggiation which broadens, grandly, to a halt. The point of interest, in formal terms, is that all this grandiosity is expended not on the returning tonic, but on the key area of the retransition. In this sense the passage may indeed be heard as a wasteful bit of revelry, splendour allowed to boil over.

Burnham gives an account of the formal object here, indicating how it might correspond to the poetic description; according to the phenomenal view offered here, then, underlying nonconceptual psychology should tie the formal description of the object with the poeticism.

One of the points being stressed in the above passage is how the repetition and circularity of the harmonic movement accompanied with the ever-growing intensity of the music relates to the concept of 'boiling over'. In accordance with ecological theory, the growing dynamic of the music specifies an increased intensity of the sound source, and the broadening frequency range would specify an increase in volumetric space. The virtual environment of the *Scherzo* theme then seems to be one of expansion and heightening intensity. This might constrain a conceptual inference to the point where the term 'grandiosity' would seem an intuitively apt characterisation.

The more extensive conceptualisation– 'boiling over and wasting into steam and froth'– involves suitably more extensive underlying psychological function. One approach would be to refer to image schemata and cite the *containment* schema, positing that the idea of the music 'boiling over' can be understood as a metaphorical projection of containment that functions both in the concept of a sustained heat source coming into contact with a body of water, and in the sound of a static harmonic progression. It would then follow that the ecological specification of intensity coupled with the containment schema is the shared structure between a pot of water that eventually boils over, and Beethoven's Fifth. There is clearly a sense of progress and development– a burgeoning intensity– in this passage, but this is juxtaposed with the recursive harmony that

operates as the containment schema. These underlying properties seem to elucidate the free description.

For additional clarification, consider the theory of cognitive categorisation. The passage of music does not modulate, nor return to the tonic, 'as we might expect'. One reason 'we might expect' one of these outcomes is that we apply our global paradigm of sonata form when we listen to the Fifth symphony, and such a paradigm stipulates that the music will lead to the tonic of the recapitulation. Also, on a local level, it is possible that a listener would have come to recognise a tonal center in the piece by virtue of the relationship the tonal structure generally has with a certain pitch– the tonic. Hearing the music modulating to the dominant may provoke a sense that it should return to the tonic. It may seem intuitively valid to describe the piece as having 'wasted to steam and froth' because it defies an established category pertaining to the tonal focus of the piece, and thus on reflection appears to defy completion; it moves away from the tonic to the readily associated key and should be expected to re-affirm that relationship with the established key, but it actually simply ends on the dominant. After the high drama of the preceding passage, the music fails to do what is required of it to affirm this fundamental category. Such experience will likely render unproblematic descriptions such as 'inconclusive,' 'unresolved,' 'incomplete' or 'unsuccessful' since these concepts seem to cohere with the given categorical structure. These words are necessarily distanced from the reality of the listening experience, since they relate specific concepts, but they express an underlying structure that inheres in an aspect of listening experience. Beethoven here explores a response to formal structure that derives from expectation propagated by a particular cognitive mechanism, the categories operating in listening themselves being conceptually empty.

So the concept of the piece boiling over and wasting into nothing can be traced to the musical structure by uncovering the shared nonconceptual psychology that drives both free description and formal representation. Repetitive harmony suggests the containment schema; an increase in dynamic and spread across the frequency range suggests the ecological specification of growing intensity or

expansion; and the music's failure to cohere with its category of tonal centre suggests a sense of it failing to achieve what is expected of it.

5.14 Concluding Summary.

The first section introduced musically aesthetic value as a phenomenon without obvious explanation. This difficulty in giving an account of musically aesthetic value in factual or scientific terms has been attributed to the difference between factual and *normative* claims, otherwise known as getting an 'ought-statement' from an 'is-statement' or the fact/value distinction. I argued that this distinction does not necessarily prohibit factual claims about musically aesthetic value since such value emerges from a subjective feeling rather than any moral or necessarily *prescriptive* judgement.

A further sub-section defined the terms *descriptive* and *evaluative*, considered some of the challenges with making the distinction, and laid out certain caveats pertaining to their usage. Insofar as the distinction between descriptive and evaluative holds, the psycho-acoustic accounts of music discussed in previous chapters only explicate the descriptive aspects of the musically aesthetic. This then suggests that a psycho-acoustic account does not explicate value.

The second section gave a fundamental characterisation of musically aesthetic value that does not rely on analysis of evaluative terms like *beautiful* or *complex*. This characterisation uses the notion of *motivating acquaintance* with the object, and clarifies the given approach to musically aesthetic value as being dissociable from normative statements by eschewing any tie to the aesthetic or indeed human behaviour. Value can be understood in the simplest causal terms of a subjective feeling that motivates further acquaintance. Under such a conception, it can be argued that musically aesthetic value is non-explicable.

A sub-section then provided further background on how aesthetic value is conceived in the philosophy literature. I described *intrinsic*, *extrinsic* and

instrumental value, showing relations and contrasts between each concept. After working through an issue with intrinsic value pertaining to human involvement, it was emphasised that intrinsic value can be ascribed to objects or experiences and that, as such, both internalist and externalist approaches need to be considered.

Externalist approaches to intrinsic value were subsequently given a section for discussion; such approaches either ascribe value to the aesthetic object, where a listener becomes epistemically acquainted with it, or ascribe value to the experience but conceive of the descriptive aspects of the musically aesthetic as external to experience. Malcolm Budd's *Values of Art* provides the opportunity to consider and criticise both views. I argued that the first view, where intrinsic value is external to experience, is flawed since it relies on externally mediated criteria to delineate value, and value in fact emerges from a subjective feeling; this view can be cast as circular. The second view, where externalism about the descriptive is combined with internalism about the evaluative, was rejected on the grounds that it will be open to the same objections made using the supervenience thesis in chapter 4.

The following section argued that music is non-explicable using analysis of research in psychology, musicology and aesthetics. Reviewing the three main psychological models developed in chapters 2 and 3– *image schemata, ecological theory* and *cognitive categorisation*– it is revealed that none contribute towards an explanation for musically aesthetic value. Each model provides details of psychological mechanisms or structures that are value-neutral. The absence of an account of value motivates what I described as the *transcendent view*: musically aesthetic value can be powerfully felt but is inaccessible to science and reasoning, suggesting a closure from the empirical world. Such a view takes musically aesthetic value to be a *superlative kind* that is to be *protected* and from which other things are to be *excluded*; examples of the transcendent view can be found in aesthetics, psychology and musicology.

The transcendent view, I argued, is a response to an explanatory problem about music, namely that it is not clear why it has value. Musically aesthetic value can be considered a *contingent fact* about music, since the musically aesthetic is amenable to detailed and precise models of musical description, but these models appear to be independent from the fact of musically aesthetic value: if music were not valued, it is unclear how such models would need to be altered. This point is drawn out by reference to recent work on the phenomenology of consciousness before giving a summary.

Inter-subjectivity of musically aesthetic value, as related to the universality of perceptual psychology, was discussed in the penultimate section above. While externalists can account for our shared responses to music by identifying aesthetic features as objective properties that listeners come to understand in their experience, an internalist can give the same account by identifying common features of our psychology that are operative in music perception. Budd's criticisms of Kant's aesthetics were invoked and rebutted to argue for an account of inter-subjectivity based on nonconceptual psychology.

The final section above strengthens the internalist account of the inter-subjectivity of aesthetic response by linking free conceptual description with the nonconceptual psychological processes that can be attributed to the experience of musical form. Writings from Allan Moore and Scott Burnham were considered and their descriptions and evaluations were linked to nonconceptual psychology. Since experiences with the musically aesthetic are nonconceptual we do not have concepts to express them, however, free conceptualisations of music experiences can be shown to express nonconceptual psychology; it is this psychology that allows agreement across individuals and degrees of appropriateness of description, even while a full conceptual description is unavailable.

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